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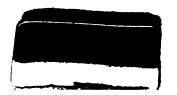


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## EXECUTIVE DOCUMENTS.

11/3/2

# ANNUAL REPORTS FOR 1896

MADE TO THE

### SEVENTY-THIRD GENERAL ASSEMBLY

OF THE

### STATE OF OHIO

AT THE

REGULAR SESSION, COMMENCING JANUARY 3, 1898.

PART III.

NORWALK OHIO:
THE LANING PRINTING CO., STATE PRINTERS.
1807

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## **PUBLICATIONS**

OF THE

# STATE OF OHIO

1803—1896.

TOGETHER WITH AN INDEX TO THE EXECUTIVE DOCUMENTS.

COMPILED BY

R. P. HAYES.

### Preface.

The first publications of Ohio were the Laws of the Governors and Judges, adopted under the Territorial Government.

From the organization of the State in 1803 until 1835, the State publications consisted of the Laws, the Senate Journal, and the House Journal. In the Journals appeared the reports of the State officers, together with the reports of the investigating committees.

In 1835, the regular reports of the State officers and Institutions began to be published separately from the Journals. All the reports of each year were bound together in a series first known as the Legislative Documents, but now called the Executive Documents. All special reports were published either in the Journals, in the Appendices to the Journals, or in separate form.

Since 1854, the Agricultural Reports have been left out of the Executive Documents; some others are now regularly omitted, while others appear at irregular intervals.

In addition the State has published, from time to time, historical and other works on a great variety of subjects, and as many as possible have been given in the list.

In many instances the reports of more than one department have been bound in one volume with no reference to this fact on the cover. Several of the reports have also been printed in German, to which reference has been made in a note.

All changes in the names of Institutions and offices have been noted as completely as possible.

Notice of errors will be gladly received, and all omissions will be entered on the revised list.

#### OHIO STATE PUBLICATIONS.

#### ADJUTANT GENERAL.

The reports for 1862-64 inclusive, were also printed in German. The first report was made in 1840.

Annual Report.	Executive	Docum	nents.	Annual Report.	Executive	Docum	ents.
1840	1840	Part	1.	1875	1875	Part	2.
1841	1841	- "	ī.	1876	1876		1.
1845	1845	"	ī.	1877	1877		2.
1847	1847	44	2.	1878	1878		1.
1850	1850	44	2.	1879	1879		2.
1858	1858	"	2.	1880	1880		2.
1859	1859	66	1.	1881	1881	"	2.
1860	1860	64	1.	1882	1882		1.
1861	1861	44	2.	1883	1883	46	1.
1862	1862	44	2.	1884	1884	"	2.
1863	1863	"	2.	1885	1885	"	1.
1864	1864	66	2.	1886	1886	"	2.
1865	1865	"	1.	1887	1887	"	2.
1866	<b>1866</b>	"	1.	1888	1888		1.
1867	1867	**	1.	1839	1889		3.
1868	1868	"	1.	1890	1890		3.
1869	1869	"	1.	1891	1891		3.
1870	1870	"	<b>2</b> .	1892	1892		1.
1871	1871	44	2.	1893	1893	**	2.
1872	1872	"	2.	1894	1894	"	2.
1873	1873	"	2.	1895	1895	"	3.
1874	1874	"	1.	1896	1896		•••••

#### AGRICULTURE. (1)

This office was created in obedience to the act of February 28, 1846, entitled "An act for the encouragement of Agriculture."

These reports were also printed in German from 1861-1895, inclusive.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1846— 1 1847— 2 1848— 3 1849— 4 1850— 5 1851— 6 1852— 7 1858— 9 1855— 10 1856— 11 1857— 12 1858— 13 1859— 14 1860— 15 1861— 16 1862— 17 1863— 18 1864— 19 1865— 20 1866— 21 1867— 22 1868— 23 1869— 24 1870— 25 1871— 26	1846 Part 1. 1847 " 2. 1848 " 1. 1849 " 2. 1850 " 2. 1851 " 2. 1852 " 2. 1853 " 2.	1873— 28 1874— 29 1875— 30	

#### AGRICULTURE,

#### PUBLICATION OF THE AGRICULTURAL DEPARTMENT.

#### AGRICULTURAL CONVENTIONS.

The first convention was on December 9, 1846. The reports of all the conventions are in the Agricultural Reports (annual), and have also been published separately since 1860.

#### FAIR BULLETIN OR LIST OF ENTRIES AND AWARDS.

The first Fair Bulletin was made in 1850. All the Fair Bulletins are included in the annual Agricultural Reports, and all have been printed separately since 1882.

#### FAIR PREMIUM LIST.

The first Premium List was made in 1850, but this was printed in the annual Agricultural Report for 1849. The Premium List was included in the annual Agricultural Report up to, and including 1877.

#### FARMERS' INSTITUTE BULLETIN.

The date of the First Institute Bulletin was 1881-1882. They have only been included in the annual Agricultural Report since the passage of the institute law in 1890. They have all been printed separately.

#### FARMERS' INSTITUTE REPORT.

The date of the first report was 1880-81. The reports are all in the annual Agricultural Reports, and have only been printed separately since 1890-91.

#### FERTILIZER REPORT.

The date of the first Fertilizer Report was 1881. They are included in the annual Agricultural Report from 1881-1884. They have all been printed separately and annually.

#### CROP REPORTS.

The date of the first Crop Report was 1880. Certain crop statistics have always been given in the annual Agricultural Report. The Crop Reports have always been printed separately, and issued monthly.

#### WEATHER AND CROP REPORTS.

The date of the first issue was 1893. They are not included in the annual Agricultural Reports but the Weather Bureau made an annual report, which was included in the Annual Agricultural Report for 1893, 94, and 95. They have all been printed separately and every month. The report for '93 is in Executive Documents, 1893, Part 2.

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#### · AGRICULTURAL EXPERIMENT STATION.

This station was created in obedience to the act of April 17, 1882, entitled "An act for the benefit of Scientific Agriculture, and for the development of the vast Agricultural resources of the State."

The first report was made in 1882.

Annual Report.	Executive Documents.	Agricultural Report.	Annual Report.	Executive Documents.	Agricultural Report.
1870 1871 1872 1873 1874 1875 1876 1876 1878 1879 1880 1881 1882— 1 1882— 1		1882	1884— 3 1885— 4 1886— 5 1887— 8 1889— 8 1890— 9 1891—10 1892—11 1893—12 1894—13 1895—14 1896	1889—Pt. 1 1890—Pt. 4	1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894 1895

#### AGRICULTURAL EXPERIMENT STATION.

#### BULLETINS.

The "first series" of the Station's bulletins, comprising those published prior to 1888, were chiefly issued in the form of newspaper slips.

The bulletins for 1888 comprise the first of seven numbers of the "second series." They were fully incorporated in the annual report of that year.

Beginning with 1889, the bulletins have been published in complete form, and only abstracts have been republished in the annual reports.

Year.	Number.	Volume.	Year.	Number.	Volume.
1888	1-7	1	1893	48-52	
1889	1— 7 8—15	$f{\hat{2}}$	1894	53-58	
1890	16-26	3	1895	59—66	
1891	27-36	4	1896	67—	
1892	37—47	5		1	į

#### TECHNICAL SERIES.

Year.	Volume.	Number.	Article.
1889	1	1	1 3
1890	ī	2	4— 6 7—23
1893	1	3	7—23

#### ARCHÆOLOGICAL AND HISTORICAL SOCIETY.

An Archæological Society was organized in 1875. On March 12, 1885, it was reorganized under the name of the Ohio State Archæological and Historical Society. The first report was made in 1885.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1875— Spe 1885— 1	cial. (Archaeological Soci'y	1891— 7 1892— 8	1891 Part 2 1892 " 1
1886— 2 1887— 3		1893 — 9 1894—10	1893 " 1 1894 " 2
1888— 4 1889— 5		1895—11 1896—12	
1890 6		1	

#### PUBLICATIONS OF THE ARCHÆOLOGICAL AND HISTORICAL SOCIETY.

Year.	Volume
1887	1
1888	2
1890	3
1896	4

#### ATHENS STATE HOSPITAL.

#### ATHENS.

This institution was created in obedience to the act of April 13, 1867, entitled, "An act to provide for the erection of an additional Lunatic Asylum."

1871.—Name, Athens Ohio Lunatic Asylum.

April 18, 1874.—Name changed to Southeastern Ohio Hospital for the Insane.

March 27, 1876.—Name changed to Athens Hospital for the Insane.

March 23, 1878.—Name changed to Athens Asylum for the Insane.

February 13, 1894.—Name changed to Athens State Hospital.

Annual Report.	Executive	Documents.	Annual Report.	Executiv	e Documents.
1867—Spl.	1867	Part 1	1884—11	1884	Part 1
1868— "	1868	" 1	1885-12	1885	" 2
1869— "	1869	" 1	1886-13	1886	" <b>2</b>
1871—1	1871	" 2	1887—14	1888	" 2
1872— 2	1872	" <u>1</u>	1888—15	1888	" <b>2</b>
1876— 3	1876	" 1	1889—16	1889	" 1
1877— 4	1877	" 3	1890—17	1890	" 2
1878— 5	1878	" 1	1891—18	1891	" 2
1879— 6	1879	" 2	1892—19	1892	" 1
1880— 7	1880	" ī	1893—20	1893	" Ī
1881— 8	1881	" j .	1894—21	1894	" <b>2</b>
1882— 9	1882	" î	1895-22	1895	" 2
1883-10	1883	" 2	1896—23	1896	

ATTORNEY GENERAL.

This office was created in 1846, and the first report was made on Dec. 29, 1846.

Annual Report.	Executive	Documents.	Annual Report.	Executiv	e Documents
1846	1846	Part 1.	1869	1869	Part 1.
1847	1847	" 1.	1871	1871	" 1.
1848	1848	" 2.	1873	1873	٠٠ 1.
1849	1849	" 1.	1874	1874	" 2.
1850	1850	<b>" 1.</b>	1875	1875	· 2.
1851	1851	" 1.	1877	1877	" 2.
1852	1852	<b>"</b> 1.	1879	1879	" 2.
1853	1853	" <del>1</del> .	1881	1881	" 1.
1854	1854	" 1.	1883	1883	" 1.
1855	1855	" Î.	1885	1885	· · 2.
1857	1857	" 2.	1887	1887	" 2.
1859	1859	" 2.	1888	1888	" 1.
1861	1861	" 2.	1889	1889	" 3.
1863	1863	" <u>1</u> .	1890	1890	" 3.
1864	1864	" 1.	1892	1892	
1865	1865	" 1.	1893	1893	" 2.
1866	1866	" 2.	1894	1894	" <del>1</del> .
1867	1867	" 1.	1895	1895	" i,

#### AUDITOR OF STATE. .

The reports previous to 1836 are to be found in the Senate and House Journals. Detailed statement of estimated appropriation was made each year.

The reports for 1862, 1863, 1866, 1875, inclusive, were also printed in German.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1836	1836 Part 1.	1867	1867 Part 1.
1837	1837 " 1.	1868	1868 " 1.
1838	1838 • " 1.	1869	1869 " 1.
1839	1839 " 1.	1870	1870 " 1.
1840	1840 " 1.	1871	1871 " 2.
1841	1841 " 1.	1872	1872 " 2.
1842	1842 " 1.	1873	1873 " 1.
1843	1843 " 1.	1874	1874 " 1.
1844	1844 " 1.	1875	1875 " 2.
1845	1845 " 1.	1876	1876 " 1.
1846	1846 " 1.	1877	1877 " 1.
1847	1847 " 1.	1878	1878 " 1.
1848	1848 " 1.	1879	1879 " 1.
1849	1849 " 1,	1880	1880 " 2.
1850	1850 " 1.	1881	1881 " 2.
1851	1851 " 1.	1882	1882 " 2.
1852	1852 " 1.	1883	1883 " 2.
1853	1853 " 1.	1884	1884 " 1.
1854	1854 " 1.	1885	1885 " 2.
1855	1855 " 1.	1886	1886 " 1.
1856	1856 " 1.	1887	1887 " 1.
1857	1857 " 1,	1888	1838 " 2.
1858	1858 " 2.	1889	1889 " 1.
1859	1859 " 2.	1890	
1860	1860 " 2.	1891	
1861	1861 " 2.	1892	
1862	1862 " 2.	1893	
1863	1863 " 1.	1894	
1864	1864 " 1.	1895	
1865	1865 " 1.	1896	
1866	1866 " 1.		

#### BANK COMMISSION.

This commission was created in obedience to the act of February 25, 1839, entitled "An act providing for the appointment of a Board of Bank Commissioners and for the regulation of Banks within the state of Ohio."

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1830 1839 1840 1841	1839 Part 1, 1840 " 1. 1841 " 2.	1842 1843 1844	1842 Part 1. 1843 " 1. 1844 " 1.

#### BLIND ASYLUM.

#### COLUMBUS.

This institution was created in obedience to the act of April 13, 1837, entitled "An act making provision for the Instruction of the Blind."

The first report was made 1837.

Annual Report.	Executive	Docur	nents.	Annua Repor		Executive	Docur	nents.
1836—Spl.	1836	Part	1.	1867—	31	1867	Part	2.
1837— 1	1837	- "	ī.	1868—		1868	- "	2.
1838— 2	1838	**	2.	1869—		1869	46.	2.
1839— 3	1839	"	2.	1870—		1870	**	2.
1840— 4	1840	"	1.	1871—		1871	**	2.
1841 5	1841	44	2.	1872—		1872	**	1.
1842— 6	1842	66	ī.	1873—		1873	**	2.
1843— 7	1843	44	ī.	1874 -	38	1874	44	1.
1844 — 8	1844	44	1.	1875-		1875	"	2.
1845 9	1845	**	1.	1876		1876	"	1.
1846 — 10	1846	66	1.	1877—	41	1877	44	2.
1847 11	1847	44	1.	1878-	42	1878	44	ĩ.
1848 12	1848	44	2.	1879—	43	1879	• "	1.
1849— 13	1849	66	1.	1880-	44	1880	44	2,
1850— 14	1850	61	1.	1881—	45	1881	46	2.
1851— 15	1851	"	1.	1882-	46	1882	44	2.
1852— 16	1852	"	1.	1883		1883	44	1.
1853— 17	1853	"	2.	1884—	48	1884	"	2.
1854— 18	1854	"	1.	1885—	49	1885	**	2.
1855— 19	1855	44	1.	1886—	50	1886	66	ī.
1856— 20	1856	"	1.	1887—	51	1887	44	1.
1857— 21	1857	46	1.	1888—	52	1888	**	2.
1858— 22	1858	64	1.	1889-	53	1889	"	3.
1859— 23	1859	"	1.	1890—	54	1890	"	3.
1860 24	1860	64	1.	1891—	55	1891	44	1.
1861 25	1861	44	1.	1892-	56	1892	•6	1.
1862— 26	1862	**	2.	1893—	57	1893	• •	1.
1863— 27	1863	"	2.	1894	58		······	
1864— 28	1864	+6	1.	1895—	59	1895	"	2.
1865— 29	1865	4	2	1896—	60			
1866— 30	1866	46	1.	II	- 1			

#### BOYS' INDUSTRIAL SCHOOL.

#### LANCASTER.

This institution was created in obedience to the act of April 5, 1859, entitled "An act to provide for the establishment of the Reformischool of Ohio."

April 22, 1885, name changed to Boys' Industrial School.

The first report was made in 1856

Annual report.	Executive	Documents.	Annual Report.	Executive	Docur	nents.
1856— 1 1857— 2 1858— 3 1859— 4 1860— 5 1861— 6 1862— 7 1863— 8 1864— 9 1865— 10 1866— 11 1867— 12 1868— 13 1869— 14 1870— 15 1871— 16 1871— 16 1872— 17 1873— 18	1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873	Part 1,  " 1, " 1, " 1, " 1, " 2, " 2, " 2, " 2, " 2, " 2, " 2, " 2	1877— 22 1878— 23 1879— 25 1880— 25 1881— 26 1882— 27 1883— 28 1884— 29 1885— 30 1886— 31 1887— 32 1888— 33 1889— 35 1891— 36 1892— 37 1893— 38 1893— 38 1894— 39 1895— 40	1877 1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888 1889	Part " " " " " " " " " " " " " " " " " " "	2. 1. 1. 2. 1. 1. 2. 2. 2. 1. 1. 1. 1.
1875— 20 1876— 21	1875 1876	" 2. " 1.	1896— 41		•••••	· · · · · · · · · · · · · · · · · · ·

#### CANAL COMMISSION.

This commission was created in obedience to the act of May 20, 1822, entitled "An act authorizing an examination into the practicability of connecting Lake Erie with the Ohio River by a canal."

The first report was made in January, 1823.

Annual Report.	Executive Documents.	Annual Report.	Executive	Docus	nents
1822		1835	i <del></del>		
1824		1836	1836	Part	1.
1825		1837	1837	4.	1.
1827		1839	•••••	• • • • • • • • • • •	
1828		1888	1888	Part	2.
1829		1889	1889	44	3.
1830		1893	1893	"	1.
1831		1895	1895	44	2.
1834					



#### CANAL FUND-COMMISSIONERS OF.

This commission was created in obedience to the act of February 14, 1825, entitled "An act to provide for the internal improvement of the State of Ohio by navigable canals."

Name: Board of Commissioners of Canal Fund.

The duties of this Board transferred to the Board of Public Works in 1852.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents
1822		1842	1842 Part I.
1826		1843	1843 " 1.
1829		1844	1844 " 1.
1830		1845	1845 " 2.
1831		1846	1846 " 1.
1×36	1836 Part 1.	1847	1847 " 2.
1837	1837 " 1.	1848	1848 " 1.
1838	1838 " 1.	1849	1849 " 1.
1839	1839 ' " 2.	1850	1850 " 1.
1840	1840 " 1.	1851	1851 " 1.
1841	1841 " 2.		

#### CANAL—PENNSYLVANIA & OHIO COMPANY.

This company was incorporated in obedience to the act of January 10, 1827 entitled "An act to incorporate the Pennsylvania and Ohio Canal Company."

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
Special.		1845	1845 Part 1.
1836	1836 Part 1.	1846	1846 " 1.
1837	1837 " 1.	1847	1847 " 2.
1839	1839 " 1.	1848	1848 " 2.
1840	1840 " 1.	1849	1849 "1.
1841	1841 " 1.	1850	1850 " 1.
1843	1843 " 1.	1852	1852 " 1.
1844	1844 " 1.	1853	1853 " 1.

#### CHARITIES, BOARD OF.

This board was created in obedience to the act of April 17, 1867, entitled "An act in relation to state charitable and correctional institutes." Section I. "That the governor shall appoint five persons, who shall constitute the Board of State Charities."

The first report was made in 1867.

This board was abolished by section 3 of an act entitled "An act making partial appropriations for the year 1872, passed Feb. 10, 1872.

This board was reorganized by an act "to establish a Board of State Charities, and defining duties," passed April 3, 1876.

Annual Report.	Executive Documents.		Annual Report.	Executive Documents.		
1867— 1 1868— 2 1869— 3 1870— 4 1871— 5 1876— 1 1877— 2 1878— 3 1879— 4 1880— 5 881— 6 882— 7 883— 8	1867 1868 1869 1870 1871 1876 1877 1878 1879 1880 1881 1882 1883	Part 2.  " 3.  " 4.  " 2.  " 1.  " 3.  " 1.  " 1.  " 1.  " 1.  " 1.	1884— 9 1885— 10 1886— 11 1887— 12 1888— 13 1889— 14 1890— 15 1891— 16 1892— 17 1893— 18 1894— 19 1895— 20 1896— 21	1884 1885 1886 1887 1888 1889 1890 1891 1892 1893	Part 2. " 1. " 2. " 1. " 2. " 1. " 2. " 1. " 2. " 1. " 2. " 2. " 2. " 2. " 2. " 2.	

#### EXECUTIVE DOCUMENTS.

#### CLEVELAND STATE HOSPITAL.

#### CLEVELAND.

This institution was created in obedience to the act of April 30, 1852, entitled "An act to provide for the erection of two additional lunatic asylums.

1855-Name, Newburgh asylum.

April 7, 1856—Name changed to Northern Ohio Lunatic Asylum at Newburgh. April 18, 1874—Name changed to Northern Ohio Hospital for the Insane.

March 27, 1876—Name changed to Cleveland Hospital for the Insane.

March 23, 1878-Name changed to Cleveland Asylum for the Insane.

February 13, 1894-- Name changed to Cleveland State Hospital.

Annual Report.	Executive	Documents.	Annual Report.	Executive	Documents
1852—Spl.	1852	Part 1,	1875— 21	1875	Part 1.
1853— ''	1853	" 2.	1876 22	1876	" <b>1</b> .
1854 "	1854	" 1.	1877— 23	1877	" 2.
1855— 1	1855	<b>" 1</b> .	1878— 24	1878	" 1.
1856 — 2	1856	" 1.	1879— 25	1879	" 1.
1857— 3	1857	" 1.	1880 26	1880	" 1.
1858 4	1858	<b>" 1.</b>	1881— 27	1881	٠' 1.
1859— 5	1859	" ].	1882— 28	1882	" 2.
1860 6	1860	<b>" 1</b> .	1883 29	1883	" 1.
1861— 7	1861	" 1.	1884— 30	1884	" 2.
1862— 8	1862	" <u>2</u> .	1885— 31	1885	" 1.
1863— 9	1863	" 2.	1886— 32	1886	" 2.
1864— 10	1864	" 2.	1887— 33	1887	" 2.
1865— 11	1865	" 2.	1888— 34	1888	" 1.
1866— 12	1866	2.	1889— 35	1889	" 1.
1867 13	1867	" 2.	1890— 36	1890	" 3.
1868 14	1868	" <b>2</b> .	1891 37	1891	" 1.
1869 15	1869	" <u>2</u> .	1892— 38	1892	" 1.
1870 1-	1870	· 2.	1893 39	1893	" 2
1871— 17	1871	" <b>1</b> .	1894 — 40	18 <b>94</b>	"· 1.
1872— 18	1872	" <b>1</b> .	1895 41	1895	" 1.
1873 19	1873	" l.	1896— 42	•••••	
1874— 20	1874	" 2.			

#### OHIO STATE PUBLICATIONS.

#### COLUMBUS STATE HOSPITAL.

#### COLUMBUS.

This institution was created in obedience to the act of March 7, 1835, entitled An act providing for the erection of a Lunatic Asylum."

1889-Name, Ohio Lunatic Asylum.

April 7, 1856-Name changed to Central Ohio Lunatic Asylum.

April 18, 1874—Name changed to Central Ohio Hospital for the Insane.

March 27, 1876—Name changed to Columbus Hospital for the Insane.

February 13, 1894—Name changed to Columbus State Hospital.

The first report was made in 1839.

Annual Report.	Executive	Documents.	Annual Report.	Executive	Documents.
1836—Spl.	1836	Part 1.	1867— 29	1867	Part 2.
1837 "	1837	" î.	1868— 30	1868	" 2.
1838— "	1838	" ī.	1869 31	1869	" 2.
1839 — 1	1839	" î.	1870— 32	1870	" 2.
1840 - 2	1840	" î.	1871— 33	1871	" 2.
1841- 3	1841	" î.	1872— 34	1872	" 2.
1842- 4	1842	" i.	1873 35	1873	" <del>2</del> .
1843— 5	1843	" i.	1874 36	1874	" 2.
1844 6	1844	" ī.	1875— 37	1875	" <u>2</u> .
1845 — 7	1845	" Ī.	1876— 38	1876	" 2.
1846— 8	1846	" i.	1877— 39	1877	" 3.
1847 9	1847	" <u>1</u> .	1878- 40	1878	" <b>2</b> .
1848— 10	1848	" Ž	1879 41	1879	" <u>2</u> .
1849— 11	1849	" ī.	1880 42	1880	" ī.
1850 12	1850	" î.	1881— 43	1881	" 2.
1851 13	1851	" · Ī.	1882— 44	1882	" 2.
1852 14	1852	" <u>1.</u>	1883 45	1883	" 2,
1853 15	1853	" 2.	1884 46	1884	" <u>ī</u> .
1854 16	1854	۰٬ <u>î.</u>	1885 47	1885	" ī.
1855— 17	1855	" i.	1886 48	1886	" ī.
1856 - 18	1856	" 1.	1887 49	1887	" Ī.
1857 19	1857	' i.	1888 50	1888	" 2.
1858- 20	1858	" <u>ī</u> .	1889 51	1889	" 3.
1859 21	1859	" ī.	1890 52	1890	" 1.
1860 22	1860	" 1.	1891— 53	1891	" ī.
1861 23	1861	" j.	1892— 54	1892	" i.
1862— 24	1862	· 2.	1893 55	1893	" î.
1863— 25	1863	" 2.	1894— 56	1894	" <u>2</u> .
1864 26	1864	" 2	1895 - 57	1895	" Ī.
1865 27	1865	" 2.	1896— 58		
1866— 28	1866	" 2.			

B Ex. Doc.

#### COMPTROLLER OF TREASURY.

This office was created in obedience to the act of April 12, 1858, entitled "An act to establish the Independent Treasury of the state of Ohio." Sec 4. "For the purpose of securing a more full and perfect system of accountability among the officers of the fiscal department of the state, there shall be created a comptroller of the treasury, etc., etc."

Annual Report.	Executive	Docum	uents.	Annual Report.	Executive	Docum	nents
1858	1858	Part	1.	1868	1868	Part	1.
1859	1859	٠.	1,	1869	1869	44	1.
186ύ	1860	**	1.	1870	1870,	46	1.
1861	1861	4.	1.	1871	1871	"	2.
1862	1862	"	1.	1872	1872	"	2.
1863	1863	44	1.	1873	1873	66 ,	2.
1864	1864	**	2.	1874	1874	44	1.
1865	1865	"	1.	1875	1875	**	2.
1866				1876	1876	46	1.
1867	1867	"	1.				

#### DAIRY AND FOOD COMMISSION.

This commission was created in obedience to the act of May 8, 1886, entitled "An act to create the office of Dairy and Food Commissioner."

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1886—1 1887—2 1888—3	1888 Part 1.	1892— 7 1893— 8 1894— 9	1892 Part 3. 1893 " 3.
1889—4 1890—5 1891—6	1889 " 3, 1890 " 2, 1891 " 3,	1895—10 1896—11	1895 Part 1.

#### DAYTON STATE HOSPITAL.

#### DAYTON.

This institution was created in obedience to the act of April 30, 1852, entitled "An act to provide for the erection of two additional Lunatic Asylums."

1855—Name, Dayton Asylum.

April 7, 1856, name changed to Southern Ohio Asylum at Dayton.

April 8, 1874, name changed to Western Ohio Hospital for the Insane.

March 27, 1876, name changed to Dayton Hospital for the Insane.

March 23, 1878, name changed to Dayton Asylum for the Insane.

February 13, 1894, name changed to Dayton State Hospital.

Annual Report.	Executive	Documents.	Annual Report.	Executive	Docus	nents
1852— Sp	1852	Part 1.	1875— 21	1875	Part	2.
1853— "	1853	" <b>2</b> .	1876— 22	1876	66	1.
1854 "	1854	<b>"</b> 1.	1877 — 23	1877	*1	3.
1855 1	1855	" 1.	1878 24	1878	"	1.
1856— 2	1856	<b>" 1</b> .	1879 25	1879	44	1.
1857 3	1857	<b>"</b> 1.	1880— 26	1880	66	1.
1858 4	1858	<b>"</b> 1.	1881— 27	1881	66	1.
1859 5	1859	<b>"</b> 1.	1882— 28	1882	"	2.
1860— 6	1860	" 1.	1883 — 29	1883	66	2.
1861 7	1861	" 1.	1884 30	1884	"	2.
1862 8	1862	" 2.	1885— 31	1885	66	1.
1863 9	1863	" <del>2</del> .	1886— 32	1886	"	1.
1864 10	1864	" Ž.	1887— 33	1887	"	1.
1865— 11	1865	" <del>2</del> .	1888— 34	1888	**	2.
1866— 12	1866	" <del>2</del> .	1889— 35	1889	"	3.
1867— 13	1867	" 2.	1890— 36	1890	66	3.
1868— 14	1868	" 2.	1891— 37	1891	44	3.
1869— 15	1869	" <u>2</u> .	1892— 38	1892	**	ĭ.
1870— 16	1870	" <del>2</del> .	1893 — 39	1893	46	î.
871— 17	1871	" 2.	1894 40	1894	**	2.
0/1 1/	1872	" ī.	1895— 41	1895	"	ī.
372—18	1873	" j	1896— 42	1000		
73— 19 74— <b>20</b>	1874	" i.	1000- 42	••••••	••••••	

#### DEAF AND DUMB ASYLUM.

#### COLUMBUS.

This institution was created in obedience to the act of January 30, 1827, entitled "An act to establish an Asylum for the education of Deaf and Dumb Persons."

January 21, 1829. Resolution for the location of the Deaf and Dumb Asylum at Columbus.

The first report was made in 1827.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
827— 1		1862— 36	1862 Part 1.
828— 2		1863— 37	1863 " 2.
829 3		1864— 38	1864 2.
830— 4	l	1865 39	1865 " 2.
831— 5		1866 - 40	1866 " 2.
832 6		1867 — 41	1867 " 2.
833— 7		1868— 42	1868 " 2.
834 8		1869— 43	1869 " 2.
835 - 9		1870— 44	1870 " 2.
836 10	1836 Part 1.	1871- 45	1871 " 1.
837— 11	1837 " 1.	1872— 46	1872 " 2.
838 12	1838 " 1.	1873— 47	1873 " 1.
839 13	1839 " 2.	1874 - 48	1874 " 2.
840 14	1840 " 1.	1875— 49	1875 " 1.
841 15	1841 ' 1.	1876 50	1876 " 1.
842— 16		1877 — 51	1877 " 2.
843 17	1843 " 1.	1878— 52	1878 " 1.
814 18	1844 " 1.	1879— 53	1879 " 1.
845 19	1845 " 1.	1880 54	1880 " 1.
846— 20	1846 " 1.	1881— 55	1881 " 2.
847— 21	1847 " 1.	1882— 56	1882 " 2.
848— 22	1848 " 2.	1883 - 57	1883 1.
849 23	1849 " 1.	1884 — 58	1884 · " 2.
850 - 24	1850 " 1.	1885 59	1885 " 1.
851-25	1851 " 1.	18-6- 60	1886 1.
852 26	1852 " 1.	1887— 61	1887 " 1.
853 27	1873 " 1.	1888- 62	1888 " 1.
854— 28	1854 " 1.	1889— 63	1889 " 3.
855 29	1855 " 1.	1890— 64	1890 " 2.
856 30	1856 " 1.	1891— 65	1891 " 1.
857— 31	1857 " 1.	1892 66	1892 " 1.
858 - 32	1858 " 1.	1893— 67	1893 " 1.
859— 33	1859 " 1.	1894— 68	
860- 34	1860 " 1.	1895— 69	1895 " 2.
861— 35	1861 " 1.	1896— 70	

#### EPILEPTIC ASYLUM.

#### GALLIPOLIS.

This institution was created in obedience to the act of April 11, 1890, entitled "An act to provide accommodations for the Epileptic and Epileptic Insane of the State."

1891. Name—Asylum for Epileptic and Epileptic Insane. April 13, 1892, name changed to Ohio Hospital for Epileptics. The first report was made in 1890.

Annual Report,	Executive Documents.	Annual Report.	Executive Documents.
1890-1 1891-2 1892-3 1893-4	1890 Part 2 1891 " 1 1892 " 1 1893 " 1	1894-5 1895-6 1896-7	1894 Part 1 1895 " 1

#### EQUALIZATION, BOARD OF.

This board was created in obedience to the resolution of March 1, 1834, entitled "Resolution appointing members of the Board of Equalization of taxable property in this state."

A reappraisement of real property is made every ten years, and this board equalizes the rates.

Report.	Report.
1826	1859
1835	1871
1841	1880
1853	1890

#### EXECUTIVE DOCUMENTS.

The Executive Documents were printed separately in 1836, in obedience to the act of Dec. 17, 1836, entitled "An act to provide more fully for the preservation and safe keeping of the Journals."

Section 3. "That the printed journals shall contain only the proceedings of the respective Houses; and all executive communications with the accompanying documents, reports of the several officers of the state, except such as shall be called by special resolution, reports of the board of public works, and all official documents, shall be printed separately from the said journals, in the same form, and furnished with an index."

Year.	Parts.	Year.	Parts.	Year.	Parts.
1836	1	1856	1-2	1876	1-2-3
1837	1	1857	1-2	1877	1-2-3
1838	1-2	1858	1-2	1878	1-2
1839	1-2	1859	1-2	1879	1-2-3
1840	1	1860	1-2	1880	1-2
1841	1-2	1861	1-2	1881	1.2
1842	1 1	1862	1-2	1882	1-2
1843	1	1863	1-2	1883	1-2
1844	1 1	1864	1-2	1884	1-2
1845	1-2	1865	1-2	1885	1-2
1846	1-2	1865	1-2	1886	1-2
1847	1-2	1867	1-2	1887	1-2
1848	1-2	1868	1-2	1888	1-2
1849	1-2	1869	1-2	1889	1-2-3
1850	1-2	1870	1-2	1890	1-2-3
1851	1-2	1871	1-2	1891	1 2-3
1852	1-2	1872	1-2	1892	1-2-3
1853	1-2	1873	1-2	1893	1-2-3
1854	1 1	1874	1-2	1894	1-2-3
1855	1-2	1875	1-2	1895	1-2-3

# INDEX TO EXECUTIVE DOCUMENTS—1836-1855—Continued. The numbers under the different dates indicate the volume of the Executive Documents in which the report is found.

	_	_	_	_	_	=	===		_	=	_	_	==	_	=	_	_	==	_	=
	1836.	1837.	1838.	1839.	1810.	18 <u>4</u>	1842.	1843	1844	1845.	1846.	1847.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.
Adjuant	 	ļ		 	1	1				1	   	2 2	1	 2	2 2		2	2		
Archæological Attorney				 				 	 	 	 1	1	 2	 1	ï	 1	 1	 1	 	ï
Auditor	1	1	1	1	1	1	1	1	1	1	1	1	1	1 	1	1	1	1	1	1 
Bank ComBlind	-:: 1	 1		1 2		$\begin{vmatrix} 2\\2 \end{vmatrix}$	1	1	1	1	 1	 1	 2	 1	 1	1	 1	2	 1	 1
Blind, Working	 i	1	 	 	 	 	 		ļ	 		 	.:.							
Canal Fund	1		1	2		2 1	1	1	1	2 1	1	2 2	1 2	1			 1			
Charities		 	 		 	 		 				 								
Claims, soldiers			 	 	 	 	 	 	 	ļ	 						 	 		 
Comptroller					 	 	 	 				 	 			 	 			
Deaf Emigration	1	1	1	2	1	]	 	1	1	1	1	1	<b>2</b>	1	1	1	1	1	1	1
Epileptic					 	ļ						 					 			
Forestry	 	 		ļ	 		 		 	 	 	 					 	 	 	 
GeologyGovernor	1	1	1		 1	  -: 				 1	 1	 i	<sub>i</sub>	1	 1	··i	 	 1	 	 1
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Imbecile	ļ		 	 		ļ	ļ ¦	•••	 	 		 	 		 		 	 	ļ	•••
Girls' IndustrialInsane, Athens			! 	 			 			 		ļ		•••			 	 	 	
Insane, ClevelandInsane, Columbus		 1	i	1	1		 1	 1	 1	 1	 1	1			 1	 1	1	2 2	 1	1
Insane, Dayton			 						 	 	 	 	 	• • • • • • • • • • • • • • • • • • • •	 	 	1	1	1	1
Insane, LongviewInsane, Toledo			• • • • • • • • • • • • • • • • • • • •	2	1	2	1		1	1	1	2	2		1	1		 		
Insurance, B. & Loan			! :••• !•••			 	! !	•••	 			 	 	•••		 	 		 	
LaborLibrary	ļ		 					•••	 	 1	1	1	 2	1	D	gifi	ze	b)	(	300

#### INDEX TO EXECUTIVE DOCUMENTS-1836-1855—Cotinued.

	1836.	1837.	1838.	1839.	1840.	1841.	1845	1843.	1844.	1845.	1846.	1847.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.
Live stock	ï	  -:	 1	 1	 1	 1	 1	1		 1	1	 J	 1	 1	 1	 1	 2			 
Meteorological				 							••• •••			ļ		 			•••	
Oil Pardon		 			 			۱ ا						!			 			 
Penitentiary	1	1		  -	1	1		1	1	1	1	1	1	1	1	1		1		1
Printing	l	1		 1	1	2 1	 1	 1	 1	1	 1	ï	 1		 1	 1	 1	   1		1
Quartermaster	1	1	2	2	1		1	1	1	1 		 2						2		1
School		1	1	1	1	1 1	] ]	1	1	1 1	1	2	2	2	1 1	2 1	 1	2	1	1 2
Sinking fund				<b></b>	ļ			•••	•••	ļ					 :	<b></b>	1	; 1	1	1
Soldiers' Orphans' Home Soldiers' Home		ļ	 		ļ			 		 	 			: ••• •••			 			
State House			1	1			 	 	1	 	1	1	1	1	' 1 	1		1	1	1
Surgeon General Treasurer	1		1	1	 1	 1	 1	 1	  -:;	 	···	1	 1	 1	1	 	   	2	 	     1
University, Miami	1	1	2 2	2	1			1	1	1 1 	1	2 2 	2 2 	1	2 	1	2 	2		···

#### INDEX TO EXECUTIVE DOCUMENTS-1856-1877-Continued.

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	1856.	1857.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.	1875,
AdjutantAgriculture		 	2	1	1	<b>2</b> 	2 	<b>2</b> 	2	1	1	1	1	1	2	2	2	2	1	_ _2 
Archaeological			  •••	2	 	2	•••	ï		1		 1		 1		 1	•••			 2
Auditor Rec. & Exp	1 2	1 2	2 2	2	2 2	2	1	1	1 2	1 2	1		1 2			<b>2</b> 		1		
Bank Commissioner Blind Asylum		ı		į.			 2		 1	 2	 1	 2	 2	 2		 2	 1	2	 1	 2
Blind, Working Home Canal. Commissioners	••••	 	 		 	•••		•••	ı <b></b> !	•••		••• •••		•••		•••	•••	 	•••	•••
Canal Fund	¦	•••			 	•••	•••	···		•••		•••	•••				•••			•••
Charities	•••		•••	٠		ļ	¦	•••	•••	•••	1	•••	•••	•••			•••			•••
Claims, Soldiers	•••	<b> </b>		•••		1	•••	•••	•••	•••	•••	•••	••	•••		••••	••••			•••
Comptroller						i								•••	1		•••	2	1	<b>2</b> 
Deat and Dumb Emigration			-	ļ		ļ		2		1	1				2					
Epileptic				• • • •	<b></b>		•••	••••		•••				•••	 	••••	•••		•••	•••
Gas Commissioner			,	<u></u>			 	•••		•••		1	 2		•••		•••			•••
Governor's Message	1	1	2	 2	1	1	1	1	1	1	1		1	1	2	2	2	1	1	1
Horticulture	•		1	1	 1	' 1				2	2		2			1	2	1		 1
Industrial, Boys'	. 1		j		1	1	2	2	2	2	2	2	2	2 2	2 2	2 1	2	2 1	1 2	2 1
Insane, Athens Cleveland			i	1		 1	 2	 2	 2	 2	 2	1 2	1 2	1 2		2	1	 1	 2	
" Columbus " Dayton			1	1	1	1 1	2	2 2	2 2	2 2	2 2		2 2						2	2 2
" Rastern" Longview Toledo			ļ	•••	2		2	2	 2	 2	2	 1	 2	· • • • • • • • • • • • • • • • • • • •	 2				•••	•••
Insurance B. & Loan			···				•••	•••	•••	••••					•••					

## EXECUTIVE DOCUMENTS.

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	1856.	1857.	1858.	1859.	1860.	1861	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871	1872.	1873.	1874.	1875.
LaborLibrary	1	2		 1	 1	 2	 2		 1	 1	 2		 1	 ]	 2		 2	 2	 1	
Live Stock		 				•••			•••										 	
Meteorological	•••		 	 	 	 			•••		•••						 		2	
Oil Pardon	•••	•••	•••	•••	•••			 	•••				 	 						
Penitentiary		ł	ŀ	l		•••		•••	•••	•••	•••		•••	•••	••••					<b>2</b>
Printing	 1	i	i	1	i	1	l	1	1 1	2 1	2 2	2	1 1	2 1	2 1	1 2	2	2 2	1	1 2
Quartermaster		1			1			. 2 		1		1	2	 2	1	 1		 1	1	1
School	$\frac{2}{2}$	2	1 1	2	2 1	1	1 2	1 1	1 1	2 1	2	2 1	1	1	2	2 1	1	2 2	2 2	2 1
Shops											 l	 1		 2			 2		 1	 2
Soldiers Orphans' Home		 	 								 2					1 	] 	2	1	
State House								2 1	) 1	1 2	2	2 1	2 1	1 	2 					
Surgeon General	1	1	1	1	1	1	1	i ı	1							1			i i	 1
University, Miami	 	1 				 			 					1 2 					2	 2

## INDEX TO EXECUTIVE DOCUMENTS-1876-1895-Continued.

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	1876.	1877.	1878.	1879.	1880	1881.	1889.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
Adjutant	1	2	1	2		2	1	1		•••		2	1	3	3		1		2	3
Archæological		2	•••	2	•••	1	ļ	1	 		•••								1	 1
AuditorAuditor Rec. and Exp								i		• • •			• • • •	٠	•••				•••	
Bank Commissioner Blind asylum	 1	2		 1	2		 2	 1	2	 2	 1	 1	 2			 1	 1	<sub>1</sub>	 1 <sub>,</sub>	 2
Blind, working home Canal Commissioners	 	ļ	 	•••			 	•••	••••	•••	•••		1 2	2				1		1 2
Canal fund Canal, Penna. & Ohio	1	1																		
Charities	1	3	1	1			ļ	•••	• • • •	اا		•••	• • •	'			•••	•••	•••	
Claims, soldiers Commissary	t						į.			- 1										
Comptroller	1	 		•••	•••			•••	•••	•••			 1	 3	 2		 3	3	1,	···i
Emigration	1			!															'	
Epileptic Fish and Game																				1 2
ForestryGas Commissioner	l	ı									- 1									
Geology Governor's Message																				
Health Horticulture			•••	•••	•••	••••	•••	•••	•••	•••	•••	•••	••••	•••	•••	•••		3		2
ImbecileIndustrial, Boys			1	1 1	2	2 1	1	1 2	2 2	$\frac{2}{2}$	1	1	1 2	3 1		3 1	1	1		2
Industrial, Girls Insane, Athens	1	3	2	$\frac{2}{2}$	1	2 1	1	1 2	1	$\frac{2}{2}$	1 2	1 2	1 2	3 1	1 2	1 2	1 ]	1	1 2	1 2
Insane, ClevelandInsane, Columbus	2	3	2	2	1	2		1 2	2 1	1	2 1	2 1	1 2	3	3 1	1	1	2 1	1?	1
Insane, DaytonInsane, Massillon			•••	•••	•••			•••	•••	•••				•••	•••			1	2 1	1
Insaue, Longview Insaue, Toledo		ا…	•••	•••	•••;	•••	•••	•••	2	2	2	2	2	1	1					
Insurance B. and LoanInsurance L. and Fire			••• ••••				•••		•••	•••		•••		•••	• • •			•••	···,	3

## INDEX TO EXECUTIVE DOCUMENTS-1876-1895-Concluded.

	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893	1894.	1895.
Labor		3 2	9	ī -	·		i —	2	<u>.                                      </u>	<u>.                                      </u>	2		_			1 3				_
Live stock	 								l	l			1	1		3				1
Meteorological		2	 2		 1	 1	 1	 2	ï	2 2	2 2	2 2	2	1 2	3	1 3	3 2		 3	 3
Oil Pardon					2	2 	1	2	2	1	<b>2</b>		2 2	3 1	3 1	1	1			1
Penitentiary Penitentiary interm	1	2	2	<b>2</b>	1	1	1	1	1 2	2	1	1 1	2 2	3	1		1 1	2	1	2 1
PrintingPublic Works	3	2 3	2 2	2 1	2	1 1	2 1	1 2	2 2	2 2	1 1	1	1 2	3	2 2	2 3	1 2	1 1	1	2 2
Quartermaster	  3			 3				 	   					 		140				
School	3 2	1		3	 	•••		 	 	 		···		•••						
Sinking fund	3	2	ļ		1	2	1	1	2	2		1		1	1		•••		•••	
Soldiers' Orphans' Home Soldiers' Home				1	1					1				ı			1	1	 2	i
State house	 	•••		ļ	 					 				 			•••		•••	
Surgeon general Treasurer	 j			 1	1				 2		 	 1	 1		1	 1	 ]	 1		 1
University, Miami	 	 	 	 	 	1	 1	2	2 2		2 2	 2	1 2	1 2	2 1	 1	 1	 2		 1
University, State	2						ı	1	2	2	2 2	2	1		3 2	3	2 3	3 2	 3	1 2

#### FISH AND GAME COMMISSION.

The Fish Commission was created in obedience to the act of May 3, 1873, entitled "An act to authorize the appointment of commissioners of fisheries for the state of Ohio, and defining their duties."

The Fish and Game Commission was created in obedience to the act of May 17, 1886, entitled "An act to amend sections 405, 408, 409 of the Revised Statutes of Ohio." Sec. 405. "The governor shall appoint five commissioners of fish and game," etc.

Annual	Executive	Agricultural	Annual	Executive	Agricultural
Report.	Documents.	Report.	Report.	Documents.	Report.
1876— 1 1877— 2 1878— 3 1×79— 4 1880— 5 1881— 6 1882— 7 1883— 8 1884— 9 1885—10 1886—11	1876—2 1877—2 1879—1 1880—2 1881—2 1882—1 1883—1 1884—2 1885—1 1886—2	1876 1877 1878 1879 1881 1883 1884	1887—12 1888—13 1889—14 1890—15 1891—16 1+92—17 1893—18 	1887—2 1888—1 1889—2 1890—2 1891—1 1892—1 1893—1	1893 1893

## FORESTRY, BUREAU OF.

This Bureau was created in obedience to the act of April 16, 1885, entitled "An act to establish a State Forestry Bureau.—That there be and hereby is established at the State University at Columbus, Ohio, a central office for the promotion of Forestry."

The first report was made in 1885.

No reports have been made since 1891 by the Bureau.

Annual Report.	Executive Documents	Annual Report.	Éxecutive	Document
1885— 1	1885 Part 1.	1888— 4	1888	Part 2.
1886— 2 1887— 3	1886 " 2. 1857 " 2.	1889— 5 1891— 6	1889 1891	" 3. " 1.

### GAS METERS, INSPECTOR. .

This office was created in obedience to the act of April 6, 1866, entitled, "An act for the inspection of gas meters, the protection of gas consumers, and the protection and regulation of gas light companies." Section 1. "That the governor with the advice and consent of the Senate, appoint an inspector of gas meters, and illuminating gas, etc".

Annual Report.	Executive	Documents.
1867 1868	1967 1868	Part 1. " 2.

## GEOLOGICAL SURVEY OF OHIO.

This survey was created in obedience to the act of March 27, 1837, entitled "An act providing for a Geological Survey of the State of Ohio."

The first report was made in 1838.

Year.	First Survey.	Exe Docu	cutive iments.
1836	Committee on Geological Survey (Gov.'s Message) First Annual Report	1836.	Part 1.
1837	First Annual Report	1837.	"
1838	Second "	1838.	66

Year.			Second	l Survey.
1869 1870	Report of Progress Map. Report of Progress		so print	ed in German.)
2012	report of 110gress	••		
	· · · · · · · · ·	olume	. Part.	
1873	Geology of Ohio.	1	1 2	Geology. (Printed in German Paleontology. Map.
1874	44	2 2	1 2	Geology. Paleontology. Map. Chart.
1878 1879 1882 1884	66 68 64	3 4 5	1	Geology. Geological Atlas. Zoology and Botany. (In German
1888	66	6 7		Economic Geology. Map.
1893 1894	44	7	1 1-2	Map. (One volume.)
1886	Report on Petroleu	m and	Gas.	,

Year.	Third Survey.
1890	First Annual Report.—Map.

## GIRLS' INDUSTRIAL HOME.

## WHITE SULPHUR SPRINGS.

This institution was created in obedience to the act of May 5, 1869, entitled "An act to establish a reform and industrial school for girls."

1869.—Name, State Industrial and Reform School for Girls.

1872.—Name, State Industrial Home for Girls.

The first report was made in 1869.

Aunual Report.	Executive Documents.	Annual Report.	Executive Documents
1866—Spl. 1867—" 1868—" 1869— 1 1870— 2 1871— 3 1872— 4 1873— 5 874— 6 875— 7 776— 8 77— 9 78—10 9—11 0—12 1—13	1866	1882—14 1883—15 1884—16 1885—17 1886—18 1887—19 1888—20 1889—21 1890—22 1891—23 1892—24 1893—25 1894—26 1 95—27 1896—28	1882 Part 2 1883 " 1 1884 " 1 1885 " 2 1886 " 1 1887 " 1 1888 " 1 1889 " 3 1890 " 1 1891 " 1 1892 " 1 1893 " 1 1894 " 1 1895 " 1

## EXECUTIVE DOCUMENTS.

## GOVERNOR'S MESSAGE.

The reports previous to 1836 are to be found in the Senate and House Journals. The messages for 1864, '67, '68, '69 were also printed in German.

Annual Report.	Executive	Documents.	Annual Report.	Executive	Documents
1836 1837	1836 1837	Part 1 " 1 " 1	1866 1867	1866 1867	Part 1 " 1 " 1
1838 1839	1838 1839	" 1 " 1	1868 1869	1868 1869	" i
1840 1841 1842	1840 1841 1842	" i	1870 1871 1872	. 1870 1871	" 2 " 2 . 2
1842 1843 1844	1842 1843 1844	" 1 " 1	1873	1872 1873	" 1-2 " 1
1845	1845	" i	1874 1875	1874 1875	" 1 " 1–2
1846 1847	1846 1847	" 1-2	1876 1877	1876 1877	" 1-2 " 3 " 2
1848 1849	1848 1849	" 1-2	1878 1879	1878 1879	" 2
1850 1851	1850 1851	" i	1880 1881	1880 1881	" 2
1853 1855	1853 1855	" 1 " 1	1882 1883	1882 1883	" 2
1856 1857	1856 1857	" 1-2	1884 1885	1884 1885	" 1
1858 1859	1858 1859	" 1-2 " 1-2	1887 1888	1887 1888	" ]
1860 1861	1860 1861	" 1 " 1	1889 - 1890	1879 1890	" 1-2 " 1
1862 1863	1862 1863	" 1 " 1	1891 1892	1891 1892	Part 1
1864 1865	1864 1865	" 1 " 1	1893 1895	1893 1895	" 1 " 1

## HEALTH-BOARD OF.

This board was created in obedience to the act of April 14, 1886, entitled "An act to create and establish a State Board of Health in the state of Ohio."

The report was made in 1886.

In addition, several pamphlets have been published.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1886— 1 1887— 2		1892— 7 1893— 8	1892 Part 3
1888— 3 1889— 4		1894— 9 1895—10	1895 Part 2
1890— 5 1891— 6	•••••	189611	
Cholera	owing pamphlets have also be , Prevention of	••••••	1892
Diphthe	eria: Its Prevention and Res	triction	***************************************
	ction and Disinfectants		
	and Young Children, Care an		
	Fever, its Restriction and Pre		
Small P	<b>,</b>	*********	1894
Typhoid	Fever. " "		

### HORTICULTURAL SOCIETY.

This society was organized in 1847, as the Pomological Society. The Fifteenth Pomological Society Report became the first Horticultural Society Report in 1867 See Pomological Society.

Annual Report.	Executive Documents.	Agricultural Report.	Annual Report.	Executive Documents.	Agricultural Report.
1867 1	1	1867	1882—16		1882
1868 2		1868	1883-17		1883
1869 3		1869	1884—18		1884
1870 4		1870	188519		1885
1871 5		1871	1886-20		1886
1872— 6		1872	1887—21		1887
1873 7		1873	1888-22		1888
1874 8		1874	1889-23		1889
1875 9		1875	1890-24		1890
187610		1876	1891—25		1891
1877-11		1877	1892-26		1892
1878-12		1878	189327	1893 Pt. 3	1893
1879-13		1879	1894—28		1894
188014		1880	1895—29		1895
1881—15		1881	1896-30		1896

## HOUSE JOURNALS.

Year.	Year.	Year.	Year.	Year.	Year.
1801—Ter'l.	1818—19	1834—35	1848-49	1864	1880
1802— "	1819—20	1835Sp.ses	1849—50App	1865	1881
1803— 4	1820—21	183536	1850—51	1866	1882
1804— 5	1821-22	1836—37	185152	1867	1883
1805 6	1822-23	183738	185253	1868	1884
1806— 7	1823—24	183839	185253	1869	1885
1807 8	1824—25	183940	1854—-App.	1870	1896
1808 9	182526	1840-41	1855	1871	1887
180910	1826—27	1841-42	1856	1872	1888
181011	1827—28	1842—Sp.ses	1857	1873	1889
181112	182829	1842—43	1858	1874	1890Sp.ses
1812—13	1829-30	1843-44	1859	1875	1891
181314	183031	1844-45	1860	1876	1892
181415	1831—32	1845-46	1861	1877	1893
1815—16	1832—33	1846—47	1862	1878	1894
1816—17	1833—34	1847—48	1863	1879	1896

### IMBECILE ASYLUM.

### COLUMBUS.

This institution was organized in obedience to the act of April 17, 1857, entitled "An act to establish an asylum for the education of idiotic and imbecile youth."

1857.—Name: Asylum for the Education of Idiotic and Imbecile Youth.

1881.—Name: Ohio Institution for Feeble-Minded Youth.

The first report was made November 1, 1857.

Annual Report.	. Executive	Docu	ments.	Annu Repor		Executive	Docu	ments.
1857— 1	1857	Part	2.	1877—	21	1877	Part	3.
1858— 2	1858	"	1.	1878-	22	1878	"	1.
1859— 3	1859	44	1.	1879—	23	1879	"	1.
1860 4	1860	"	1.	1880-	24	1880	66	2.
1861 5	1861	"	1.	1881	25	1881	**	2.
1862 6	1862	"	<b>2</b> .	1882—	26	1882	44	2.
1863— 7	1863	"	2.	1883-	27	1883	"	2.
1864 8	1864	"	2.	1884	28	1884	44	2.
1865— 9	1865	44	2.	1885—	29	1885	"	2.
1866— 10	1866	44	2.	1886—	30	1886	"	1.
1867 11	1867	44	2.	1887—	31	1887	44	1.
1868 12	1868	"	2.	1888—	32	1888	46	1.
1869— 13	1869	44	2.	1889—	33	1889	"	3.
1870— 14	1870	46	2.	1890-	34	1890	44	2.
1871— 15	1871	46	1.	1891-	35	1891	44	3.
1872— 16	1872	44	2.	1892—	36	1892	"	1.
1872— 17	1873	46	1.	1893—	37	1893	"	1.
1874— 18	1874	"	2.	1894—	38	1894	"	1.
1875— 19	1875	44	1.	1895-	39	1895	44	2.
1876— 20	1876	"	2.	1896—	40			

#### IMMIGRATION-COMMISSION OF.

This commission was created in obedience to the act of April 14, 1863, entitled "An act to provide for the establishment of a commission in the city of Cincinnati, to encourage immigration, and to prevent fraudulent practices against immigrants to the state of Ohio."

The reports for 1864 and 1866 were also printed in German.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1863 1864	1863 Part 2.	1866 1868	1866 Part 1. 1868 " 2.
1865	1865 " 1.	1869	1869 " 1,

### INSURANCE—BUILDING AND LOAN.

This office was created in obedience to the act of May 1, 1891, entitled "An act to provide for the organization, regulation and inspection of building and loan associations, and to repeal certain laws therein named."

The first report was made in 1892.

The reports for 1892, 1893, were also printed in German.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1891— 1892— 1 1893— 2		1894— 3 1895— 4 1896— 5	1895 Part 3.

### INSURANCE-FIRE.

This office was created in obedience to the act of April 15, 1867, entitled "An act to regulate insurance companies."

The first report was made in 1867.

Annual Report.	Executive	Documents.	Annual Report.	Executive Documents.
1867— 1 1868— 2 1869— 3 1870— 4 1871— 5 1872— 6 1873— 7 1874— 8 1875— 9 1876—10 1877—11 1878—12 1880—14 1881—15		Part 2. " 1.	1882—16 1883—17 1884—18 1885—19 1886—20 1887—21 1888—22 1889—23 1890—24 1891—25 1892—26 1893—27 1894—28 1895—29 1896—30	

#### EXECUTIVE DOCUMENTS.

#### INSURANCE-LIFE.

This office was created in obedience to the act of April 15, 1867, entitled "An act to regulate insurance companies."

The first report was made in 1867.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1867— 1 1868— 2 1869— 3 1870— 4 1871— 5 1872— 6 1873— 7 1874— 8 1875— 9 1876—10 1877—11 1878—12 1879—13 1880—14 1881—15	1867 Part 2. 1868 " 1.	1882—16 1883—17 1884—18 1885—19 1886—20 1837—21 1888—22 1889—23 1890—24 1891—25 1892—26 1893—27 1894—28 1895—29	

#### LABOR.

This office was created in obedience to the act of May 5, 1877, entitled, "An act to create a Bureau of Statistics of Labor." The first report was made in 1877.

These reports were also printed in German, from 1878–1893, inclusive.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1877— 1 1878— 2 1879— 3 1880— 4 1881— 5 1882— 6 1883— 7 1884— 8 1885— 9 1886— 10	1877 Part 3. 1878 " 2. 1879 " 2. 1880 " 1. 1881 " 2. 1882 " 1. 1883 " 2. 1884 " 1. 1885 " 1. 1886 " 2.	1897— 11 1888— 12 1889— 13 1890— 14 1891— 15 1892— 16 1893— 17 1894— 18 1895— 19 1896— 20	1887 Part 2. 1888 " 2. 1889 " 3. 1890 " 1. 1891 " 1. 1892 " 2. 1893 " 2. 1894 " 3. 1895 " 3.

#### LEGAL PUBLICATIONS.

## INDEXES TO LAWS AND RESOLUTIONS.

1803 to 1836, Z. Mills.

1808 to 1845, Z. Mills.

1845 to 1857, W. T. Coggeshall.

Index to Documents, 1802-36, W. T. Coggeshall.

Index to Laws and Resolutions, Vols. 66-73, inclusive. 1869-1876, Okey and Morton.

Index to Statutes, Vols. 40-45, 1842-47.

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## LEGAL PUBLICATIONS.

## Laws.

Volume.	Year,	
1	1803	
2	1803- 4	
3	1804- 5	
4	1805- 6	***************************************
5 1	1806- 7	
6	1807- 8	
7	1808- 9	
8	1809-10	Pt. 1, Acts. Pt. 2, Laws ordered reprinted.
. 9	1810-11	
10	1811-12	
11	1812-13	
12	1813-14	
13	1814-15	D4 1 A-4- D4 0 T
14	1815–16	Pt. 1, Acts. Pt. 2, Laws ordered reprinted.
15	1816-17	An act for dissiplining the militia Top 07 1010
16 17	1817-18 1818-19	An act for disciplining the militia, Jan. 27, 1818.
18	1819-20	Pt. 1, Acts of general nature. Pt. 2, Acts of local nature.
10	1018-20	Pt. 3, Acts or general nature. Pt. 2, Acts of local nature.
19	1820-21	rt. o, Acts orgered reprinted.
20	1821-22	Pt. 1, Acts of a general nature. Pt. 2, local. Pt. 3,
20	1021 22	special session.
21	1822-23	General and local.
22	1823-24	" "
23	1824-25	4 4
24	1825-26	66 66
25	1826-27	16 16
· <b>26</b>	1827-28	66 68
27	1828-29	" "
<b>28</b>	1829-30	"
29	1830-31	"
30	1831–32	" and special session.
31	1832-33	44 44
32	1833-34	1
33	1834-35	" and special session.
34	1835–36	1 " "
35	1836–37 1837–38	
36 37	1838-39	l
38	1990 40	
39	1840-41	General and local.
40	1841-42	" and adjourned session.
41	1842-43	" "
42	1843-44	
43	184 <del>4 - 4</del> 5	4 4
44	1845-46	44 44
45	1846-47	" "
46	1847-48	"
47	1848-49	4 4
48	1849-50	
49	1850-51	4 4

# EXECUTIVE DOCUMENTS.

# LEGAL PUBLICATIONS—Continued.

#### LAWS.

Volume.	Year.	Volume.	Year.	Volume.	Year.
50	1852	64	1867	78	1881
51	1852 <b>–53</b>	65	1868	79	1882
52	1854	66	1868-69	80	1883
53	1856	67	1870	81	1884
54	1857	68	1871	82	1885
55	<b>185</b> 8	69	1872	83	1886
56	1859	70 -	1873	84	1887
57	1860	71	1874	85	1888
58	1861	72	1875	86	1889
59	1862	73	1876	87	1890
60	1863	74	1877	88	1891
61	1864	75	1878	89	1892
62	1865	76	1879	90	1893
63	1866	77	1880	91	1894
				92	1896

# LEGAL PUBLICATIONS.

## REPORTS.

	Period.	Vols.
Таррап, В	1816-1819	1
Wright, J. C		1
Hammond, C. (1-9) Ohio R	eports 1821–1839	9
Wilcox, P. B. (10) "		1
Stauton, E. M. (11-13)	1841–1844	3
Griswold, H. (14–19) "		6
Lawrence, W. (20) "	1851	1
McCook, G. W. (1) Ohio S	tate Reports 1852–1853	1
Warden, R. B. (2) "	" 1853	j 1
Warden, R. B. & (3) "	"; 185 <b>3</b> –1854	1
Smith, J. H		
Warden, R. B. (4) Ohio S	tate Reports 1854-1855	1
Critchfield, L. J. (5-21) "	" 1855-1871	17
Granger, M. M. (22-23) "	" 1871–1873	2
DeWitt, E. L. (24-42) "	" 1873–1885	19
Okey, G. B. (43-45) "	" 1885–1888	3
Burgess, L. J. (46-51) "	" 1888–1894	6
Randall, E. O. (52-54) "	" 1894–1896	3

## LEGAL PUBLICATIONS.

#### STATUTES.

		·	Period.	Vola
Statute (	Compilations.	Chase	1788-1833	8
44	<b>~</b> 44	Swan's Revision	1841	1
44	64	Curwen's Revising Index	1849	1
44	4.6	Swan's Revision, Derby ed	1854	1
44	"	Curwen	1833-1860	4
44	66	Swan & Critchfield	1860	2
44	44	Swan & Sayler	1868	1
68	46	Sayler's Statutes	1861-1875	4
Revised	Statutes		2002 2010	-
RC VIBCO		M. A. Daugherty, John S. Brasee and George B. Okey, Commissioners to revise		
			1000	
44		and consolidate the Statutes	1880	6
64	******	Williams' Edition	1886	1
			1884	1 1
64	*****		1890	3
44	"	Giauque	1890	3

## LEGAL PUBLICATIONS.

## TERRITORIAL LAWS.

		Period.	Vols.
	By the Governor and Judges,		
	from the commencement of		
River Ohio			
<b>a</b>	of December	1791	1
Same	Government and Judges, July -December	1792	
Same	Governor and Judges, May-	1/82	
Same	August, frequently recog-		l
	nized as the Maxwell Code	1795	1
Same	Governor and Judges, April	2.00	_
	and May, frequently recog-		1
•	nized as the Freeman Code	1798	1
Same	Passed at the First Session of		l
	the General Assembly (Ter-		1 .
	ritorial), September	1799	1
Same	Second Session, November	1800	1
Same	Third " "	1801	1

#### LIBRARY.

This Library was instituted by Governor Thomas Worthington in 1817. Governor's Message to the General Assembly, December 2, 1817:—"The fund made subject to my control by the last General Assembly, besides paying the ordinary demands upon it, and for the articles mentioned in the resolution of the Legislature of the 28th of January, 1817, has enabled me to purchase a small but valuable collection of books, which are intended as the commencement of a Library for the State."

Annual Report.	Executive Documents.			Annual Report,	Executive Documents.		
1839—Spec'1	1839	Part	2.	1871—26	1871	Part	2.
18 <b>45</b> *"	1845	"	1.	1872—27	1872	**	2.
l846— 1	1846	"	1.	187328	1873	"	2.
1847— 2	1847	"	1.	187429	1874	"	1.
18 <b>48— 3</b>	1848	44	2.	1875-30	1875	**	2.
1849 4	1849	"	1.	1876—31	1876	"	2.
1850 5	***************************************			1877—32	1877	44	2.
1851— 6	1851	Part	1.	1878—33	1878	"	2.
1852 7	******			187934	1879	"	1.
853 8				188035	1880	"	2.
854 9	•••••		!	1881—36	1881	66	1.
85510	1855	Part	1.	188237	1882	66	1.
85611	1856	"	1.	1883—38	1883	44	1.
85712	1857	"	2.	1884—39	<b>1884</b>	**	2.
.858—13	1858	"	2.	1885-40	1885	44	1.
859—14	1859	"	1.	188641	1886	"	1.
860—15	1860	` 66	1.	1887—42	1887	"	1.
861-16	1861	44	2.	188843	1888	"	1.
862-13	1862	46	2.	1889—44	1889	46	2.
.8 <b>68</b> —18	1863	"	2.	189045	1890	**	1.
864—19	1864	"	1.	1891—46	1891	"	3.
86520	1864	"	1.	1892-47	1892	66 .	1.
866 21	1866	66	2.	1893-48	1893	46	3.
86722	1867	**	2.	1894-49	1894	"	ī.
868-23	1868	"	ī.	189550	1895	66	2.
869-24	1869	66	ī.	189651			
870—25	1870	66	2.				

#### LIVE STOCK COMMISSION.

This commission was created in obedience to the act of April 29, 1885, entitled 'An act to suppress and prevent dissemination of epizootic and communicable diseases of domestic animals in the state of Ohio." Section 1. "That the governor shall, with the advice and consent of the senate, appoint three persons, who shall constitute a Board of Live Stock Commissioners," etc., etc.

The first	report	was	made	in	1885.
-----------	--------	-----	------	----	-------

Annual Report.	Executive Documents.	Agricultural Report.	Aunual Report.	Executive Documents.	Agricultural Report.
1885— 1 1886— 2 1887— 3 1888— 4	1886—Pt. 1 1887—" 1 1888—" 1		1891— 7 1892— 8 1893— 9 1894— 10	1891—Pt. 3	1891
1889 5 1890 6	1889—" 1	1889	1895— 11	1895—Pt. 1	

#### LONGVIEW ASYLUM FOR THE INSANE.

#### CINCINNATI.

This institution was created in obedience to the act of November 28, 1822, entitled, "An act for the establishing of a Commercial Hospital and Lunatic Asylum for the state of Ohio."

April 5, 1878: Name changed to Longview Asylum, Pebruary 13, 1894: Name changed to Longview Hospital. The first report was made in 1822.

Annual Report.	House Journal,	
1822— 23	1822— 23	
1823— 24	1823— 24	
1831— 82	1831 32	
1833 34	1833 34	
1834 35	1834— 35	

## LONGVIEW HOSPITAL FOR THE INSANE.

#### CINCINNATI.

This institution was created in obedience to the act of November 28, 1822, entitled "An act for the establishing a Commercial Hospital and Lunatic Asylum for the state of Ohio."

April 5, 1878: Name changed to Longview Asylum.

The first report was made in 1822.

February 13, 1894: Name changed to Longview Hospital.

Annual Report.	Executive	e Docu	ments.	Annual Report.	Executive	Docui	nents.
1839	1839	Part	2,	1864	1984	Part	2,
1840	1840	"	1.	1865	1865	"	2.
1841	1841		2.	1866	1866	64	2.
1842	1842	"	1.	1867	1867	"	1.
1843	1843	• • • • • • • • • • • • • • • • • • • •	1.	1868	1868	"	2.
1844	1844	"	1.	1870	1870	"	2.
1845	1845	"	1.	1871	1871	"	1.
1846	1846	"	1.	1872	1872	"	1.
1847	1847	"	1.	1875			
18 <b>48</b>	18 <del>4</del> 8	"	2.	1877	1877	Part	2.
1849	1849	"	2.	1878	1878	"	1.
1850	1850	"	1.	1879	1879	"	3.
1851	1851	"	1,	1884	1884	66	2.
1860	1860	"	2.	1885	1885	46	2.
1861	1861	"	1.	1890	1890	"	3.
1862	1862	"	2.	1891	1891	"	1.
1863	1863	"	2.		[		
	-	,					

#### MASSILLON STATE HOSPITAL.

### MASSILLON.

This institution was created in obedience to the act of March 31, 1892, entitled "An act to provide an asylum for the care of the insane of the state, to be located in the eastern part of the state" 1893. Name—New Eastern Asylum for the Insane.

February 13, 1894. Name changed to Massillon State Hospital. The first report was made in 1893.

Annual Report.	Executive Documents.
1893— 1 1894— 2 1895— 3 1896— 4	1893 Part 1. 1894 " 1. 1895 " 1.

### MEDICAL COLLEGE.

## CINCINNATI.

This institution was created in obedience to the act of January 19, 1819, entitled "An act to authorize the establishment of a medical college." Section 1. "That there shall be established in Cincinnati, a college for instruction in physic, surgery and the auxiliary sciences, under the style and title of 'The Medical College of Ohio.'"

The last report published by the state was in 1860.

Annual Report.	Executive Docume	Annual Report.	Executive	Documents.
1836	1836 Part 1.	1845	1845	Part 1.
1837	1837 " 1.	1846	1846	" 1.
1838	1838 " 1.	1847	1847	" 1.
1839	1839 " 1,	1848	1848	" 1.
1840	1840 " 1.	1849	1849	" 1.
1841	1841 " 1.	1850	1850	" 1.
1842	1842 " 1.	1851	1851	" 1.
1843	1843 " 1.	1852	1852	" 2.
1844	1844 " 1.	1860	1860	" 2.

### METEOROLOGY, BUREAU OF.

This office was created in o'edience to the act of April 17, 1882, entitled "An act to establish a meteorological bureau for the state of Ohio."

The first report was made in 1883.

This office was merged into the Weather and Crop Department in 1892.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents
1883— 1 1884— 2 1885— 3 1886— 4 1887— 5	1885 Part 2. 1886 · 2. 1867 " 2.	1888— 6 1889— 7 1890— 8 1891— 9	1688 Part 2. 1889 " 1. 1890 " 3. 1891 " 1.

### MINES, INSPECTOR OF.

This office was created in obedience to the act of March 21, 1874, entitled "An act to regulate mines and mining and to repeal an act therein named."

The first report was made in 1874.

Annual Report.	Executive Documents.		Annual Report.	Executive	Docu	ments.	
1872 Spl. 1874— 1 1875— 2 1876— 3 1877— 4 1878— 5 1880— 6 1881— 7 1882— 8 1883— 9 1884— 10 1885— 11	1874 1876 1876 1877 1878 1880 1881 1882 1883 1884	Part	2 2 2 2 2 1. 1. 1.	1866— 12 1887— 13 1888— 14 1839— 15 1890— 16 1891— 17 1892— 18 1893— 19 1894— 20 1895— 21 1896— 22	1886 1887 1888 1889 1890 1891 1892 1893 1894 1895	Part	2. 2. 1. 2. 3. 3. 2. 3. 3.

### OIL, INSPECTOR OF.

This office was created in obedience to the act of May 15, 1878, entitled, "An act to provide for the appointment of inspector and deputy inspectors of mineral oils, and other substances, to regulate the sale of the same for illuminating purposes, and to repeal certain acts therein named."

The first report was made in 1878.

Annual Report.	Executive Documents.		Annus Repor		Executive	Docu	meu <b>ts.</b>	
1878— 1 1879— 2 1880— 3 1881— 4 1882— 5 1883— 6 1884— 7 1885— 3 1886— 9	1878 1879 1880 1881 1882 1883 1884 1885	Part	2. 1. 2. 2. 1. 2. 2. 1. 2.	1888— 1889— 1890— 1891— 1882— 1893— 1894— 1896—	12 13 14 15 16 17 18	1888 1889 1890 1891 1892 1898 1894 1895	Part	2. 3. 3. 1. 1. 2. 1.

## PARDONS, BOARD OF.

The first report was made in 1888.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1888— 1 1889— 2 1890— 3 1891— 4 1892— 5	1888 Part 2. 1889 " 1. 1890 " 1. 1891 " 1. 1892 " 1.	1893— 6 1894— 7 1895— 8 1896— 9	1893 Part 1.

### PENITENTIARY.

February 16, 1812. Resolution "for the appointment of a committee to lay down the plan on which the State House and Penitentiary shall be erected."

February 20, 1812. Resolution "laying down and agreeing to a plan on which the State House and Penitentiary shall be erected."

The present building was completed and occupied in 1834.

The reports for 1868 and 1869 were also printed in German.

Annual Report	Executive Documents.	Annual Report.	Executive Documents.
1833		1865	1865 Part 1.
1834		1866	1866 " 2
1835		1867	1867 " 2.
1836	1836 Part 1.	1868	1868 " 2.
1837	1837 " 1.	1869	1869 " 2.
1838	1838 " 1.	1870	1870 " 1.
1839	1839 " 1.	1871	1871 " 1.
1840	1840	1872	1872 " 1.
1841	1841 " 1.	1873	1873 " 1.
1842	1842 " 1.	1874	1874 " 2.
1843	1843 " 1.	1875	1875 " 2,
1844	1844 " 1.	1876	1876 " 1.
1845	1845 " 1.	1877	1877 " 2.
1846	1846 " 1.	1878	1878 " 2.
1847	1847 " 1,	1879	1879 " 2.
1848	1848 " 1.	1880	1880 " 1.
1849	1849 " 1.	. 1881	1881 " 1.
1850	1850 " 1.	1882	1882 " 1.
1851	1851 " 1.	1883	1883 " 1.
1852	1852 " 2.	1884	1884 " 1.
1853	1853 " 1,	1885	1885 " 2.
1854	1854 " 1.	1886	1886 " 1.
1855	1855 " 1.	1887	1887 " 1.
1856	1856 " 1.	1888	1888 " 2.
1857	1857 " 1.	1889	1889 " 3,
1858	1858 " 1,	1890	1890 " 1.
1859	1859 " 1.	1891	1891 " 2.
1860	1860 " 1.	1892	1892 " 1.
1861	1861 " 1.	1893	1893 " 2.
1862	1862 " 2.	1894	1894 " 1,
1863	1863 " 2.	1895	1895 " 2.
1864	1864 " 2.	1896	

### POMOLOGICAL SOCIETY.

This society was organized in 1847. The fifteenth report became the first Horticultural Society Report in 1867.

See Horticultural Society.

Annual report.	Agricultural report.
1862 — 10	1862
1863— 11	1863
1864— 12	1864
1865— 13	1865
1866— 14	1866
1867— 15	1867

## PRINTING, SUPERVISOR OF PUBLIC.

This office was created in obedience to the act of Jan. 28, 1825, entitled "An act for the appointment of a State printer, and defining his duties."

March 24, 1860. "An act to provide for the execution and provision of the State Printing and Binding."

Annual Report.	Executive	Documents.	Annual Report.	Executive	Docus	ments
1838	1838	Part 2.	1878	1878	Part	2.
1840	1840	" 1.	1879	1879	44	2.
1841	1841	" 2.	1880	1880	64	2.
1862	1862	<b>"</b> 1.	1881	1881	"	1.
1863	1863	" 1.	1882	1882	"	2.
1864	1864	" 1.	1883	1883	**	1.
1865	1865	" 2.	1884	1884	46	2.
1866	1866	" 2.	1885	1885	"	2,
1867	1867	" 2.	1886	1886	"	1.
1868	1868	<b>" 1</b> .	1887	1887	44	1.
1869	1 <b>86</b> 9	μ 2	1888	1888	"	1.
1870	1870	" 2. ·	1889	1889	"	2.
1871	1871	<b>" 1.</b>	1890	1890	"	2.
1872	1872	" 2.	1891	1891	"	2.
1873	1873	" 2.	1892	1892	"	1.
1874	1874	<b>"</b> 1.	1893	1893	"	1.
1875	1875	<b>" 1.</b>	1894	1894	"	1.
1876	1876	" 3.	1895	1895	"	2.
1877	1877	" 2.	11 .			

## PUBLIC WORKS.

This board was created in obedience to the act of March 4, 1836, entitled "An act to organize a Board of Public Works."

The first report was made in 1836.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.		
1836— 1 1837— 2 1838— 3 1839—Sec 1840— 4 1841— 5 1842— 6 1843— 7 1844— 8 1845— 9 1846—10 1847—11 1848—12 1849—13 1850—14	1836 Part 1. 1837 " 1.  1839 Part 1. 1840 " 1. 1841 " 1. 1842 " 1. 1843 " 1. 1844 " 1. 1845 " 1. 1846 " 1. 1847 " 1. 1848 " 1. 1849 " 1. 1850 " 1.	1867—29 1868—30 1869—31 1870—32 1871—33 1872—34 1873—35 1874—36 1875—37 1876—88 1877—39 1878—40 1879—41 1880—42 1881—43	1867 Part. 1. 1868 " 1. 1869 " 1. 1870 " 1. 1871 " 2. 1872 " 2. 1873 " 2. 1874 " 1. 1875 " 2. 1876 " 1. 1877 " 3. 1878 " 2. 1879 " 1. 1880 " 1. 1880 " 1.		
1851—15 1852—16 1853—17 1855—1st 1856—18 1857—19 1858—20 1859—21 1860—22 1861—23 1862—24 1863—25 1864—28 1865—27 1866—28	1851 " 1. 1852 " 1. 1853 " 1. 1855 " 1. 1856 " 1. 1857 " 1. 1858 " 2. 1859 " 1. 1860 " 1. 1861 " 1. 1862 " 2. 1863 " 1. 1864 " 1. 1865 " 1. 1866 " 2.	1882—44 1883—45 1884—46 1886—48 1887—49 1888—50 1889—51 1890—52 1891—53 1892—54 1893—55 1894—56 1895—57 1896—58	1882 " 1, 1883 " 2, 1884 " 2, 1885 " 2, 1886 " 1, 1887 " 1, 1888 " 2, 1889 " 3, 1890 " 2, 1891 " 3, 1892 " 2, 1893 " 1, 1894 " 1, 1895 " 2,		

### QUARTERMASTER GENERAL.

The office of Quartermaster General was created under the constitution of 1803, and reports were made from time to time till 1866.

The reports for 1863 and 1864 were also printed in German.

Annual Report.	Executive Documents.	Annual Report,	Executive Documents		
1836	1836 Part 1.	1853	1853 Part 2.		
1837	1837 " 1.	1855	1855 " 1.		
1838	1838 " 2.	1856	1856 " 1.		
1839	1839 " 2.	1857	1857 " 1.		
1840	1840 " 1.	1859	1859 " 1.		
1842	1842 " 1.	1860	1860 " 1.		
1843	1843 " 1.	1861	1861 " 1,		
1844	1844 " 1.	1862	1862 " 2.		
1845	1845 " 1.	1863	1863 " 2.		
1846	1846 " 1.	1864	1864 " 2,		
1849	1849 " 1.	1865	1865 " 1.		
1850	1850 " 1.	1866	1866 " 1.		
1851	1851 " 1.				

### RAILROAD AND TELEGRAPH COMMISSIONER.

This office was created in obedience to the act of April 5, 1867, entitled "An act to provide for the appointment of a commissioner of railroads and telegraphs."

The first report was made in 1867.

The reports for 1888 and 1889 are both numbered as the 22d report.

Annual Report.	Executive Documents.	Annual Report	Executive Documents.
1866 - Spl 1867 - 1 1868 - 2 1869 - 3 1870 - 4 1871 - 5 1872 - 6 1873 - 7 1874 - 8 1875 - 9 1876 - 10 1877 - 11 1878 - 12	1867 Pert 1. 1868 " 2. 1869 " 2. 1870 " 1. 1871 " 1. 1872 " 2. 1873 " 1. 1874 " 1. 1875 " 1. 1876 " 3. 1877 " 3.	1882— 16 1883— 17 1884— 18 1885— 19 1886— 20 1887— 21 1888— 22 1889—	
1879— 13 1880— 14 1881— 15	1879 " 3.	1894— 27 1895— 28 1896— 29	

### EXECUTIVE DOCUMENTS.

### RECEIPTS AND DISBURSEMENTS.

This office was organized in 1853.

Annual Report.	Annual Report.	
1855	1864	
1856 1857	1865 186 <b>6</b>	
1859 1860	1868 1869	
1861	1870	
1862 1863	1872	

### REFORMATORY.

#### MANSFIELD.

This institution was created in obedience to the act of April 14, 1884, entitled "An act to establish an intermediate penitentiary and to provide for the appointment of a board of managers to locate, construct and manage the same."

April 24, 1891: Name changed to the Ohio State Reformatory. The first report was made in 1884.

Annual Report.	Executive Do	ocuments.	Annual Report.	Executive	Docur	nents.
1884— 1 1885— 2 1886— 3 1887— 4 1888— 5 1889— 6 1890— 7	1885 1887 Pa 1888 1889	art 2. " 1. " 1. " 2. " 1. " 3.	1891— 8 1892— 9 1893— 10 1894— 11 1895— 12 1896— 13	1891 1892 1893 1894 1895	Part	1. 1. 1. 1.

#### SCHOOL COMMISSIONER.

This office was created in obedience to the act of March 27, 1837, entitled "An act to create the office of a Superintendent of Common Schools, and to prescribe the duties of such officer."

This office was abolished in obedience to the act of March 23, 1840, entitled "An act to abolish the office of Superintendent of Common Schools." Section 2. "That the duties required of the Superintendent shall be performed by the Secretary of State."

This office was reestablished in obedience to the act of March 14, 1853, entitled, "An act to provide for the reorganization, supervision and maintenance of Common Schools." Section 47. "There shall be elected a State Commissioner of Common Schools,,' etc.

The reports for 1862, 1868, 1869, 1873, 1874 and 1875 were also printed in German.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1837— 1 1838— 2 1839— 3 1840 1841 1842 1843 1844 1845 1846 1347 1848 1849 1850 1851 1854— 1 1855— 2 1856— 3 1857— 4 1858— 5 1859— 6 1860— 7 1861— 8 1862— 9 1863— 10 1864— 11 1966— 13	1837 Part 1. 1838 " 1. 1839 " 1. 1840 " 1. 1841 " 1. 1842 " 1. 1843 " 1. 1844 " 1. 1845 " 1. 1846 " 1. 1847 " 2. 1848 " 2. 1849 " 2. 1850 " 1. 1851 " 2. 1855 " 1. 1855 " 1. 1856 " 2. 1857 " 2. 1858 " 1. 1868 " 1. 1869 " 2. 1860 " 2. 1860 " 2. 1861 " 1. 1862 " 1. 1862 " 1. 1863 " 1. 1864 " 1. 1865 " 2.	1868— 15 1869— 16 1870— 17 1871— 18 1872— 19 1873— 20 1874— 21 1875— 22 1876— 23 1877— 24 1878— 25 1879— 26 1880— 27 1881— 28 1882— 29 1883— 30 1884— 31 1885— 32 1886— 33 1887— 34 1888— 35 1889— 36 1890— 37 1891— 38 1891— 38 1892— 39 1893— 40 1894— 41 1895— 42	1868 Part 1. 1869 " 1. 1870 " 2. 1871 " 2. 1872 " 1. 1873 " 2. 1874 " 2. 1876 " 3. 1877 " 1.  1879 Part 3.
1867— 14	1867 " 2.	1896 43	

### SECRETARY OF STATE.

The reports previous to 1836 are to be found in the Senate and House Journals. A list of the United States, State, and County Officers in Ohio is published by the Secretary of State.

These reports were also printed in German from 1867-1895, inclusive.

Annual Report.			Executive Documents.		
1836	1836 Part 1.	1866	1866 Part 1.		
1837	1837 " 1.	1867	1867 " 1.		
1838	1838 " 1.	1868	1868 " 1.		
1839	1839 " 1.	1869	1869 " 1.		
1840	1840 " 1.	1870	1870 " 1.		
1841	1841 " 1,	1871	1871 " 1.		
1842	1842 " 1.	1872	1872 " 1.		
1843	1843 " 1.	1873	1873 " 2.		
1844	1844 " 1.	1874	1874 " 2.		
1845	1845 " 1.	1875	1875 " 1.		
1846	1846 " 1.	1876	1876 " 2.		
1847	1847 " 1.	1877	1877 " 1.		
1848	1848 " 1.	1878			
1849	1849 " 1.	1879	1879 Part 3.		
1850	1850 " 1.	1880			
1851	1851 " 1.	1881			
1852	1852 " 1.	1882			
1853	1853 " 1.	1883			
1854		1884			
1855	1855 Part 2.	1885	1		
1856	1856 " 2.	1886			
1857	1857 " 1.	1887			
1858	1858 " 1,	1888			
1859	1859 " 1.	1889			
1860	1860 " 1.	1890			
1861	1861 " 1.	1891			
1862	1862 " 2.	1892			
1863	1863 " 1.	1893			
1864	1864 " 1.	1894			
1865	1865 " 1.	1895			
,		1896			

## SENATE JOURNALS.

Year.	Year.	Year.	Year.	Year.	Year.
1803— 1803— 4 1804— 5 1805— 6 1806— 7 1807— 8 1808— 9 1809—10 1810—11 1811—12 1812—13 1813—14 1814—15 1815—16 1816—17	1819—20 1820—21 1821—22 1822—23 1823—24 1824—25 1825—26 1826—27 1827—28 1828—29 1829—30 1830—31 1831—32 1832—33 1833—34 1834—35	1835—Sp.ses 1835—36 1836—37 1837—38 1838—39 1839—40 1840—41 1841—42—Ap 1842—Sp.ses 1842—43 1843—44 1844—45 1845—46 1846—47 1847—48 1848—49		1865 1866 1867 1868 1869 1870 1871 1872 1873 1874 1875 1876 1877 1878	1881 1882 1883 1884 1885 1886 1887 1888 1889 1890—Sp.ses 1891 1892 1893 1894

## SINKING FUND COMMISSION.

This commission was created in obedience to Article 8, Section 6, of the Ohio Constitution. The Auditor of State, Secretary of State and Attorney-General are hereby created a Board of Commissioners, to be styled "The Commissioners of the Sinking Fund."

March 10, 1843. Reorganized.

April 19, 1852. "An act to define the duties of the Commissioners of the Sinking Fund."

March 14, 1853. "An act to create a Sinking Fund for the payment of the principal and interest of the Public Debt of Ohio."

Annual Report.	Executive Documents.		Executive Documents	Annual Report.	Executive Docum		nents.
1852	1852	Part	1.	1871	1871	Part	2.
1853	1853	16	1.	1872	1872	"	2.
1854	1854	"	1.	1874	1874	"	1.
1855	1855	"	1.	1875	1875	"	2.
1858	1858	64	2.	1876	1876	44	3.
1859	1859	46	2.	1877	1877	"	2.
1860	1860	46	2.	1880	1880	"	1.
1861	1861	."	1.	1881	1881	44	2.
1862	1862	66	1.	1882	1882	44	1.
1863	18 <b>63</b>	"	1.	1883	1883	46	1.
1864	1864	64	1.	1884	1884	46	2.
1865	1865	61	1.	1885	1885	66	2.
1866	1866	"	1.	1886			
1867	1867	44	1.	1887	1887	Part	1.
1868	18 <b>6</b> 8	46	1.	1888			
1869	1869	"	2.	1889	1889	Part	1.
1870	1870	"	2.	1890	1890	• 6	1.

### SOLDIERS' HOME.

## CAMP CHASE, NEAR COLUMBUS.

This institution was created in obedience to the act of April 5, 1866, entitled "An act act to establish a temporary home for Ohio Soldiers."

	Annual Report.	Executive De	cum <b>e</b> nts.
,	1865 1866	1866 P	art 2.

#### SOLDIERS' AND SAILORS' HOME.

#### SANDUSKY.

This institution was created in obedience to the act of April 30, 1886, entitled "An act to provide for the establishment and maintenance of a home for disabled and indigent ex-soldiers, sailors and marines of Ohio."

The first report was made in 1889.

Annual Report.	Executive	Documents.	Annual Report.	Executive	Documents.
886—spec.	1886	Part 1	1892—4	1892	Part 1
.887 "	1887	" 1	18935	1893	" 1
888 "	1888	" 1	18946	1894	" 2
889—1	1889	" 2	18957	1895	<b>" 1</b>
890-2	1890	" 2	18968		_
8913	1891	" 3			

#### SOLDIERS' AND SAILORS' ORPHANS' HOME.

#### XENIA.

This institution was created in obedience to the act of April 14, 1870, entitled "An act to establish Ohio Soldiers' and Sailors' Orphans' Home."

The first report was made in 1870.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1870— 1 1871— 2 1872— 3 .1873— 4 1874— 5 1875— 6 1876— 7 1877— 8 1878— 9 1879—10 1880—11 1881—12 1882—13 1883—14	1870 Part 2 1871 " 1 1872 " 1 1873 " 2 1874 " 1 1875 " 2 1876 " 2 1877 " 1 1878 " 2 1879 " 2 1880 " 2 1881 " 1 1882 " 2 1883 " 1	1884—15 1885—16 1886—17 1887—18 1888—19 1889—20 1890—21 1891—22 1892—23 1893—24 1894—25 1895—26 1896—27	1884 Part 2 1885 " 2 1886 " 1 1887 " 1 1888 " 2 1889 " 3 1890 " 3 1891 " 2 1891 " 1 1893 " 1

## STATE HOUSE, SUPERINTENDENT OF.

This office was created in obedience to the act of —————,—, entitled "An act to provide for the erection of a new State House at the Seat of Government."

1837—Name, State House Commissioners. 1860—Superintendent of State House.

Annual Report.	Executive	Docum	nents.	Annual Report.	Executive	Docum	ients.
1838 1839 1844 1846 1847 1848 1849 1850 1851 1853 1854 1855 1856 1857 1858	1838 1839 1844 1846 1847 1848 1849 1850 1851 1853 1854 1855 1856 1857	Part	1 1 1 1 1 1 1 1 1-2 1 1-2 1 1-2 1	1861 1862 1863 1864 1865 1866 1863 1864 1865 1866 1867 1868 1869 1870 1881	1861 1862 1863 1864 1865 1866 1863 1864 1865 1866 1867 1868 1869 1870	Part " " " " " " " " " " " " " " " " " " "	1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 2

### STATISTICS, COMMISSION OF.

This office was created in obedience to the act of April 17, 1857, entitled "An act in relation to Statistics." Sec. 1. "That the governor shall have power to appoint a Commissioner of Statistics for the state of Ohio."

This office was abolished by the act of April 17, 1868, entitled "An act to provide for the establishment of a Bureau of Statistics in the office of the Secretary of State and to repeal certain acts therein named."

The reports for 1862-1869 inclusive, were also printed in German.

Annual Report.	Executive	Docur	nents.	Annual Report.	Executive	Docum	ents.
1857 1858 1859 1860 1861 1862	1857	Part		1863	1863	Part	1
1858	1858	44	2	1864	1864	"	1
1859	1859	"	1	1865	1865	66	2
1960	1860	44	2	1866	1866	**	1
1001	1861	"	2	1867	1867	44	ī
1001	1862	"	ī	1868	1868	66	ī

### EXECUTIVE DOCUMENTS.

## SURGEON GENERAL.

The Surgeon General made the following reports during the rebellion.

	Annual Report.	Executive Documents.		ents.
	1862	1862	Part	<b>2</b> .
	1863	1863	41	2.
	1864	1864	"	2.
	1865	1865	44	1.
-	1866	1866	"	1.

### TOLEDO STATE HOSPITAL.

#### TOLEDO.

This institution was created in obedience to the act of April 18, 1883, entitled "An act to provide for additional accommodations for the Insane of the State."

1884. Name. Toledo Asylum for the Insane.

February 13, 1894. Name changed to Toledo State Hospital.

The first report was made in 1884.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents	
1882—Spl.		1890— 7	1890 Part 1.	
1884— 1	1884 Part 2.	1891— 8	1891 " 1.	
1885— 2	1885 " 2.	1892— 9	1892 " 1.	
1886 3	1886 " 2.	1893—10	1893 " 1.	
1887— 4	1887 " 2.	1894—11	1894 " 1.	
1888— 5		1895-12	1895 " 2.	
1889— 6	1889 ' 1.	189613		

TREASURER OF STATE.

The reports previous to 1836 are to be found in the Senate and House Journals.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents		
1836	1836 Part 1.	1867	1867	Part 1.	
1837	<b>1837</b> " 1.	1868	1868	" 1.	
1838	1838 " 1.	1869	1869	" 1.	
1839	1839 " 1.	J871	1871	" 2.	
1840	<b>1840</b> " 1.	1872	1872	" <b>2</b> .	
1841	1841 " 1.	1873	1873	" 2.	
1842	1842 " 1.	1874	1874	<b>"</b> 1.	
1843	1843 " 1.	1875	1875	" 1.	
18 <del>44</del>	<b>1844</b> " 1.	1876	1876	<b>" 1</b> .	
1845	<b>184</b> 5 " 1.	1877	1877	" 2.	
1846	1846 " 1.	1878	1878	" 1.	
1847	1847 " 1.	1879	1879	" <b>1</b> .	
1848	<b>184</b> 8 " 1.	1880	1880	" 1.	
1849	1849 " 1.	1881	1881	" 1.	
1850	1850 " 1.	1882	1882	" <b>1</b> .	
1851	1851 " 1.	1883			
1852	1852 " 1.	1884	1884	Part 2.	
1853	1853 " 2.	1885	1885	" 2.	
1855	1855 " 1.	1886			
1856	1856 " 1,	1887	1887	Part 1.	
1857	1857 " 1.	1888	1888	" 1.	
1858	1858 " 1.	1889	1889	" 3.	
1859	1859 " 1.	1890	1890	" <b>1</b> .	
1860	1860 " 1.	1891	1891	" Ī.	
1861	1861 " 1.	1892	1892	" 1.	
1862	1862 " 1.	1893	893	" ī.	
1863	1863 " 1.	1894	1894	" 2.	
1864	1864 " 1.	1895	1895	" ī.	
1865	1865 " 2.	1896			
1866	1866 " 1.	-300	i		

## UNIVERSITY, MIAMI.

#### OXFORD.

This institution was created in obedience to the act of February 17, 1809, entitled "An act to establish the Miami University."

The first report was made in 1814.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1836—11 1837—12 1838—13 1839—14 1840—15 1841—16 1842—17 1843—18 1844—19 1845—20 1846—21 1847—22 1848—23 1849—24 1850—25 1851—26 1852—27 1853—28 1854—29 1855—30 1856—31 1857—32 1858—33 1859—34	1836 Part 1. 1837 " 1. 1838 " 2. 1839 " 1. 1840 " 1. 1841 " 1. 1842 " 1. 1843 " 1. 1844 " 1. 1845 " 1. 1846 " 1. 1847 " 2. 1848 " 2.  1850 Part 2.	1867—42 1868—43 1869—44 1870—45 1871—46 1872—47 1873—48 1874—49 1875—50 1876—51 1877—52 1878—53 1879—54 1880—55 1881—56 1882—57 1883—58 1884—59 1885—60 1886—61 1887—62 1888—63 1889—64 1890—65	1869 Part 1.  1883 Part 2.  1884 " 2.  1886 Part 1.  1889 " 1.  1890 " 2.
1860—35 1861—36 1862—37 1863—38 1864—39 1865—40 1866—41	1866 Part 2.	1891—66 1892—67 1893—68 1894—69 1895—70 1896—71	

### UNIVERSITY, OHIO.

This institution was created in obedience to the act of January 9, 1802 (In Territorial Laws, vol. 3), entitled "An act establishing an university in the town of Athens." Section I. "—— By the name and style of the "American Western University."

Name changed in obedience to the act of February 18, 1804, entitled, "An act establishing an university in the town of Athens." Section I. "—— By the name and style of the "Ohio University."

The reports mentioned seem to be the only ones published by the state.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents
1836	1886 Part 1.	1853	1853 Part 2.
1837	1837 " 1.	1881	1881 " 1.
1838	1838 " 2.	1882	1882 " 1.
1839	1839 " 2.	1883	1883 " 1.
1840	1840 " 1.	1884	1884 " 2,
1841	1841 " 2.	1885	1885 " 2.
1842	1842 " 1.	1886	1886 " 2.
1843	1843 " 1.	1887	1887 " 2.
1844	1844 " 1.	1888	1888 " 2.
1845	1845 " 1.	1889	1889 " 2.
1846	1846 " 1.	1890	1890 " 1.
1847	1847 " 2.	1891	1891 " 1.
1848	1848 " 2.	1892	1892 " 1.
1849	1849 " 1.	1893	1893 " 2.
1850		1895	1895 ." 1.
1851	1851 Part 1.	1896	
1852	1852 " 1.	2300	

### UNIVERSITY, OHIO STATE.

#### COLUMBUS.

This institution was created in obedience to the act of March 22, 1870, entitled "An act to establish and maintain an Agricultural and Mechanical College in Ohio."

May 1, 1878, name changed to Ohio State University. The first report was made in 1871.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1871—1 1872—2 1873—3 1874—4 1875—5 1876—6 1877—7 1878—8 1879—9 1880—10 1881—11 1882—12 1883—13	1874 Part 2 1875 " 2 1876 " 2 1877 " 2 1878 " 2 1879 " 2 1880 " 2 1881 " 1 1882 " 1 1883 " 1	1884—14 1885—15 1886—16 1887—17 1888—18 1849—19 1890—20 1891—21 1892—22 1893—23 1894—24 1895—25 1896—26	1884 Part 2 1885 " 2 1886 " 2 1887 " 2 1888 " 1 1889 " 1 1890 " 3 1891 " 2 1892 " 2 1893 " 3 1894 " 1 1895 " 3

### WORKSHOPS AND FACTORIES.

This Department of Inspectors was created in obedience to the act of April 4 1884, entitled "An act to supplement section 2573 of the Revised Statutes of Ohio, for the better protection of the health, comfort and safety of persons employed in shops and factories. The Governor shall appoint a suitable person, to be known as the inspector of the sanitary condition, comfort and safety of shops and factories. who shall be a competent and practical mechanic in practice," etc, etc.

April 29, 1885. An act apportioning the state into Inspection Districts.

These reports were also printed in German from 1884-1893, inclusive.

Annual Report.	Executive	Documents.	Annual Report.	Executive Document
1884— 1 1885— 2 1886— 3 1887— 4 1888— 5 1889— 6 1890— 7	1884 1885 1886 1887 1888 1889	Part 1 " 1 " 2 " 2 " 1 " 2 " 2	1891— 8 1892— 9 1893—10 1894—11 1895—12 1896—13	1891 Part 3 1892 " 3 1893 " 2 1894 " 3 1895 " 2

#### WORKING HOME FOR THE BLIND.

#### IBERIA.

This institution was created in obedience to the act of May 11, 1886, "That there shall be established an institution for giving employment to blind persons, regardless of sex, creed, color or nationality, to be known as the working home for the blind."

The first report was made in 1886.

This institution was abolished by the repeal of the above act on April 27, 1896.

Annual Report.	Executive Documents.	Annual Report.	Executive Documents.
1886— !	1887 Part 1	1891— 6	1891 Part 1
1887— 2	1888 " 1	1892 — 7	1892 " 1
1888— 3	1889 " 2	1893— 8	1893 " 1
1889— 4	1889 " 2	1894— 9	1895 Part 1
1890— 5	1890 " 1	1895—10	

# MISCELLANEOUS REPORTS AND PUBLICATIONS.

# ANTIETAM COMMISSION.

Position of Ohio regiments on the battlefield. Also in Exec. Docs., 1895, part 1.

# ANTIETAM NATIONAL CEMETERY.

Also in Governor's message. Exec. Docs., 1871, part 2.

ASHTABULA BRIDGE DISASTER-1877.

## BANKS.

Ohio State. Also in Exec. Docs., 1854, part 1.

## BANKS.

Ohio Stock, 1855.

## BOUNDARY LINE,

Ohio and Michigan. Also in senate journal. 1835.

## BOUNDARY LINE.

Pennsylvania and Ohio. 1883. Also in Exec. Docs., 1856, part 1.

# BOUNDARY, JOINT COMMISSION.

Ohio and Pennsylvania. Also in Exec. Docs., 1878, part 2.

## BOUNDARY.

Virginia and Ohio. Also in Fish and Game report, 1877. Exec. Docs., 1847, part 2. Exec. Docs., 1877, part 2, page 1173.

Bribery Investigation in Wood County. 1875.

## CANALS.

Public documents. 1828, 1832.

# CENTENNIAL.

Ohio exhibit. 1876.

# CENTENNIAL, OHIO.

Report of Commissioners. 1889.

## CENTENNIAL.

Board of Ohio managers. 1877.

# CHARITIES AND CORRECTIONS.

Ohio state conference,

4th report in Exec. Docs., 1894, part 2. 5th report in Exec. Docs., 1895, part 2.

COAL SCREENING COMMISSION. 1884.

# COMMISSARY GENERAL.

Also in Exec. Docs., 1861, part 1.

## CONVICT LABOR SYSTEM.

Report of investigating committee. 1884.

# CORCORAN INVESTIGATION.

Report of committee. 1872.

CONSTITUTION OF 1851, 1852.

CONSTITUTION OF OHIO, 1870.

# CONSTITUTIONS OF 1802 AND 1851.

Notes by G. B. Okey and J. H. Morton. 1873.

# CONSTITUTIONAL CONVENTION. 1850-51.

Debates. 1851, 2 v.

# CONSTITUTIONAL CONVENTION. 1873-74.

Debates. 1873-74, 2 v. in 4.

# CONSTITUTIONAL CONVENTION.

Rules. 1873.

## EDUCATION.

Public instruction in Europe. 1837. Also in Exec. Docs. 1837, part 1.

# EDUCATION IN THE STATE OF OHIO.

History. Centennial volume. 1876,

# EDUCATIONAL INSTITUTIONS, HIGHER.

Also benevolent and reformatory institutions of the state of Okio. 1876.

# ELECTION CASE CONTESTED.

Cox v. Harmon. 1877.

# FARMERS' INSTITUTE.

Also in Exec. Docs., 1890, part 2.

# FORESTRY.

Condition of Ohio Forestry.

Reprint from U. S. commission of agriculture. 1884.

GENERAL ASSEMBLY.

Apportionment of members. 1892.

GENERAL ASSEMBLY.

List of officers, members and committees.

GENERAL ASSEMBLY.

Rules. 1872, '73, '76, '78, '80.

GEOLOGICAL SPECIMENS, CATALOGUE OF. Mather, W. W. 1842.

Historical Collections of Ohio. Howe, Henry. 1890. 3 v. 1896. 2 v.

HOCKING VALLEY STRIKE COMMISSION. 1885.

HOG CHOLERA.

Tuttle, Albert H. Also in Exec. Docs., 1877, part 1.

INSURANCE.

Life and Trust Company of Ohio. Also in Exec. Docs., 1850, part 2.

JUDGE ADVOCATE GENERAL. 1879.

LAND SCRIP COMMISSION. 1866.

LAWS.

Australian ballot, 1891. Circuit court. 1885. Codifying commission. 1876. Codification. 1879. Commission to revise statutes. 1878. Ditch. 1879. Election. 1886. 1892. Health. 1893. Land. 1825. Liquor. 1886. Miami Bridge Co. 1825. Militia. 1861, '65. Railroad, 1880, '93. School. 1822, '53, '59, '62, '65. '73, '75, '79, '83, '93. (The School Laws for 1873 were also printed in German.) Tax. 1877.

LEGISLATIVE PRACTICE.

Manual. 1886, '92, '93, '94, '96.

LOTTERY INVESTIGATION. 1874.

# **ELEVENTH ANNUAL REPORT**

OF THE

# STATE BOARD OF HEALTH

OF THE

# STATE OF OHIO

FOR THE

YEAR ENDING OCTOBER 31, 1896

NORWALK, OHIO.
THE LANING PRINTING COMPANY.
1897

OHIO STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,

COLUMBUS OHIO, January, 1897.

To His Excellency, Asa S. Bushnell, Governor of Ohio:

SIR: In accordance with section 8 of an "Act to create and establish a State Board of Health," the accompanying report is herewith submitted for the year ended October 31, 1896.

Respectfully,

C. O. PROBST, M. D., Secretary.

# MEMBERS OF THE STATE BOARD OF HEALTH.

*S. P. Wise, M. D., Millersburg	.December,	1896.
WM. T. MILLER, M. D., President, Cleveland	"	1897.
THOS. C. HOOVER, M. D., Vice-President, Columbus	. "	1898.
R. D. KAHLE. M. D., Lima	. "	1899.
JOSIAH HARTZELL, Ph. D., Canton	. "	1900.
E. T. NELSON, Ph. D., M. D., Delaware	• "	1901.
B. STANTON, M. D., Cincinnati	. "	1902.
C. O. PROBST, M. D., Secretary		

<sup>\*</sup>Dr. J. C. Crossland of Zanesville, appointed to succeed Dr. S, P. Wise. Term expires 1908.

# General Report.

This is the eleventh annual report of the State Board of Health, and is for the year ended October 31, 1896. The reports of deaths and contagious diseases in cities and villages, and the annual reports of local boards of health, are for the calendar year.

## PERSONNEL OF THE BOARD.

The personnel of the Board remains as it was given in the last report. The term of office of Dr. Byron Stanton having expired by limitation, he was renominated by Governor McKinley and confirmed by the Senate for the term ending December, 1902.

# MEETINGS OF THE BOARD.

Four meetings of the Board were held during the year, two in Columbus, one in Cincinnati and one in Cleveland. The meeting was held in Cleveland in order to consider the protest of the board of park commissioners against permitting storm overflows from the proposed Doan street sewer to discharge into Doan brook, a small stream flowing through a part of the park system of Cleveland. The Board after viewing the grounds and hearing arguments on both sides of the question, voted to disapprove of the proposed overflow into Doan brook. The January meeting, held in Columbus, was a joint meeting of the State and Local Boards of Health, the sixth meeting of the kind. The attendance was larger than at any previous meeting, not less than three hundred delegates being present. The proceedings were published in the tenth annual report of the State Board of Health.

## HEALTH OF THE STATE.

No satisfactory report can be made upon the comparative healthfulness of the state during the year, as mortality reports are received from cities and a few villages only. As has been pointed out before, the state's system of collecting vital statistics is so imperfect as to make the returns of no practical value. Reports received indicate a greater prevalence than usual of diphtheria and typhoid fever, and less than the usual number of cases of diarrhoeal diseases, especially of children.

## EXECUTIVE DOCUMENTS.

# SMALL-POX IN OHIO.

The places infected, and number of cases of small-pox which occurred during the year, were as follows:

Bridgeport	43	cases.
Martin's Ferry	68	**
Pease, Pultney and Colerain townships, Belmont county	13	"
Miltonsburg, Monroe county, and vicinity	13	"
East Liverpool	2	"
Lisbon	2	"
Zanesville	5	"
Dayton	61	"
Lima	10	**
Lockland	1	case.
Total	218	S cases

During the year ended October 31, 1895, small-pox was reported in sixteen places, with 206 cases of the disease. At the close of that year the disease had been suppressed except in Bridgeport, Martin's Ferry and their immediate vicinity. There had been up to that time sixteen cases of small-pox in Bridgeport, six cases in Martin's Ferry and two in the adjoining township of Pease. It should be noted that these two cities, while under separate government, are practically undivided.

The disease was abating in both places when, about the first of December, fresh outbreaks occurred in both Bridgeport and Martin's Ferry. In Bridgeport this was traceable to exposure to a man named Powell who died from what was pronounced, on post mortem examination, purpura hemorrhaghica, but which was in fact malignant small-pox of the purpuric variety. In Martin's Ferry there were also mistakes in diagnosis which caused an increased development of the disease.

The secretary of the State Board of Health visited these places early in December, and urged the local authorities to enforce more stringent measures for suppressing the disease. In Martin's Ferry there was difficulty in getting the authorities to realize the necessity for a more liberal expenditure of money for quarantine and other services. An effort to secure the harmonious co-operation of the health authorities of Bridgeport, Martin's Ferry and Wheeling, W. Va., which is connected by bridges with the former places, and where small-pox was also prevailing, was but partly successful. Finally, and after another visit by the secretary, it being found that small-pox was steadily increasing, the State Board of Health adopted the following regulations for the suppression of small-pox, and they were advertised and put in force December 16, 1895:

# REGULATIONS OF THE OHIO STATE BOARD OF HEALTH FOR THE SUP-PRESSION OF SMALL-POX IN BRIDGEPORT, MARTIN'S FERRY AND VICINITY.

- 1. The board of health of Martin's Ferry, Bridgeport and vicinity where smallpox is prevailing, shall at once enforce measures to secure the vaccination of the inhabitants of their respective communities.
- 2. All houses containing small-pox shall be securely guarded day and night, to prevent entrance to or exit from such houses.
- 3. Physicians shall be required to report at once to the health officer all cases of disease to which they are called which in any manner simulate small-pox.
- 4. It shall be the duty of the board of health to cause such cases to be examined at once by one or more reputable physicians; and "suspects" shall be strictly quarantined until it is positively known that they are not suffering from small-pox.
- 5. No person shall be employed as guard or nurse for small-pox patients unless he or she has been recently vaccinated.
- 6. All employees of railroads, steamboats or other transportation companies, passing through or touching at Bridgeport or Martin's Ferry shall present evidence of recent successful vaccination.
- 7. No railroad or other transportation company shall receive for shipment household goods of any character from Bridgeport or Martin's Ferry.
- 8. The secretary of the Ohio State Board of Health is hereby authorized to withhold, suspend or modify these regulations, or to make and enforce such additional orders or regulations as the exigencies of the situation may demand.
- 9. Any person violating these regulations shall be punished as provided in sections 2 and 5 of an act passed March 14, 1893.

Attest

C. O. PROBST, Secretary.

Adopted December 16, 1895.

At this time there were about fifty cases of small-pox in Bridgeport, Martin's Ferry and immediate vicinity. The disease was carried to East Liverpool, where two cases occurred in one family, to Pease, Pultney and Colerain townships, adjoining Bridgeport and Martin's Ferry, where there were thirteen cases, to the vicinity of Miltonsburg and Woodsfield, Monroe county, thirteen cases occurring there, to Lisbon, Columbiana county, where there were two cases, and finally, late in the epidemic, to Zanesville, where there were five cases of the disease.

There was great public alarm in this part of the state, and railroad trains were being stopped and many needless restrictions placed on freight and passenger traffic. It was deemed advisable to call a conference of representatives of boards of health of southeastern Ohio to agree upon proper quarantine regulations. A meeting was accordingly held in Bellaire on January 8, 1896, one member and the secretary representing the State Board of Health. The meeting was productive of great good. Accurate knowledge was obtained of the exact situation in infected districts, and such quarantine restrictions as were born of needless fear were voluntarily removed.

The enforcement of the rules adopted by the State Board of Health



for the control of small-pox, together with vaccination, which was quite complete, both for Martin's Ferry and Bridgeport, soon brought the epidemic to a close. The last case in Bridgeport occurred on January 28, 1896, with thirty-four cases and five deaths in the second outbreak, i. e. since the death of Powell, November 28, and a total of fifty-nine cases and eight deaths since the first outbreak of the disease. In Martin's Ferry the last case developed January 20, 1896. There were but three new cases in houses where small-pox had not already appeared, after the rules of the Board went into effect.

The total number of cases in Martin's Ferry from the beginning of the epidemic was seventy-four, and the number of deaths, seven. The entire number of cases of small-pox in Ohio resulting from this outbreak, was 168, the deaths numbering eighteen.

It should be recalled that this epidemic was started by two negro deckhands who were brought to Wheeling, W. Va., one from Cincinnati by the steamer "Hudson," and the other from Memphis, Tenn., by the steamer "Keystone State." Our Ohio river towns are especially liable to the introduction of small-pox by this class of river men, and for their protection the national government should require vaccination as a condition of service.

Small-pox made its appearance in the workhouse at Dayton early in February 1896. The health officer reported the fact on the 12th day of that month. The first patient had been confined in the workhouse forty-eight days before he was taken sick, and the origin of his disease is unknown. There appears to have been an attempt on the part of the workhouse authorities to conceal the disease, and a number of prisoners were exposed before the local health authorities could assume control.

The disease continued to spread, and finally developed in the city outside of the workhouse. Thirty-two of the workhouse prisoners contracted small-pox, of which number four died. There were twenty-nine cases in the city proper and four of these were fatal.

On February 11th a prisoner named Simmons was dismissed from the workhouse and went to his home in Lima, Ohio. He developed small-pox March 1st. Nine other cases occurred in Lima, five of these in the house where the disease began, and five in a house across the street from this one.

A case of small-pox developed in Lockland the latter part of March, in the person of a colored barber. He had been to Dayton about March 1st, but there is nothing to show that he was exposed to small-pox there.

He was removed to the Infectious Disease Hospital in Cincinnati, and recovered.

### DIPHTHERIA.

Commencing in August, the latter part, there was an increased prevalence of diphtheria which, by the close of the year in October, had

assumed proportions which threatened a general epidemic. The Board's assistance was called for at various places and its secretary visited a number of afflicted communities and aided the local authorities in suppressing the disease.

The total number of cases reported to the State Board of Health for the twelve months ending October 31, 1896, was 3,019. There were 746 deaths reported from diphtheria for the same period.

The cause of diphtheria is now known to be a vegetable parasitic micro-organism which, lodging in the throat, usually, grows there and forms a membrane and produces a poison which, on being absorbed, causes the well known symptoms of the disease. Unfortunately there are other diseases of the throat in which a membrane is formed which may be mistaken for diphtheria, and in many of these cases a positive diagnosis can be made only by finding upon bacterial examination the germ or parasite which is the cause of the disease.

The boards of health of many of the large cities of America have fitted up bacteriological laboratories where physicians can have these examinations made free of charge. Several State Boards of Health have also established laboratories for such work and have placed them at the service of all physicians and boards of health.

The importance of this work in the prevention of diphtheria cannot be overestimated. It has frequently happened during the recent epidemic of the disease in this state, that diphtheria would be introduced into a community, and that first cases of the disease would be mistaken for ordinary sore throat; disagreements in diagnosis would arise, some physicians calling their cases diphtheria and others declaring that they were tonsillitis or simple sore throat. Boards of health in such instances, were at a loss to know how to proceed, and before the dispute as to the character of the disease could be settled, a large number of persons were exposed, and an epidemic would be the result. The fact that the best medical authorities now agree that in many cases it is impossible to make a positive diagnosis in diphtheria without a bacterial examination leaves a loophole for the escape of those physicians—fortunately few—who wish to avoid reporting such cases to the health authorities.

The bacterial examination of cases of diphtheria is of much importance in deciding the duration of quarantine in any particular case. It has been found that the germ of this disease may linger in the throat of the patient several weeks after apparent recovery, and as long as the germ is present the patient is a source of danger to others. To minimize this danger the State Board of Health has ruled that quarantine in diphtheria shall continue for two weeks after the disappearance of all throat symptoms. But this is a purely arbitrary limit, causing, in the majority of cases, an unnecessarily long period of quarantine, while on the other hand, in many cases, the period is not long enough to protect the public against the disease.

The State Board of Health has had this matter of bacteriological diagnosis of diphtheria under consideration for some time, and hopes, by the aid of the boards of health in our large cities, and by a central laboratory at Columbus, to be able to offer the advantages of bacterial examinations to physicians and boards of health throughout the state.

#### MEMBRANOUS CROUP.

Membranous croup, until within a comparatively recent time, was regarded as a simple inflammatory disease of the upper air passages, and non contagious. Following the discovery of the bacterial origin of diphtheria and the identification of the parasite, it was found, upon examination, that many cases of membranous croup were undoubtedly due to this same cause. It is now established beyond controversy that the majority of cases of so called membranous croup are simply diphtheria of the air passages, and that such cases are contagious. Furthermore, it is agreed that membranous croup of a different origin, and of the non-contagious variety, which may, apparently occur, cannot be distinguished, except by bacterial examination, from contagious, diphtheritic croup. Board, therefore, at its October meeting, amended its rules regulating contagious diseases so as to include membranous croup among the quarantinable diseases, to be treated, as regards prevention, the same as diphtheria. Notice of this amendment was sent to local health authorities throughout the state, and public notice given of this requirement through the medium of the press.

Twenty thousand copies of the following pamphlet on "The Prevention of Diphtheria and Membranous Croup," were printed, and the majority of these have been properly distributed:

# DIPHTHERIA AND MEMBRANOUS CROUP.

RECOMMENDATIONS FOR THEIR PREVENTION AND RESTRICTION,

Issued by the State Board of Health of Ohio.

Diphtheria is a dangerous contagious disease, very fatal to children under five years of age, and prevailing to a greater or less extent in this state at all times, and adults are not infrequently affected, but usually have it in mild form.

The disease is caused by a germ, which lodges in the throat or upper air passages and grows, forming a whitish membrane and a poison, which is absorbed and produces the symptoms of the disease.

Membranous croup, in nearly all, if not all cases, is diphtheria, the membrane being limited to the upper part of the windpipe. Membranous or diphtheritic croup is contagious like other forms of diphtheria, and the same precautions are required for its prevention.

Diphtheria and membranous croup (and in speaking of them hereafter both will be included under *diphtheria*) are spread by means of this germ. The secretions from the nose, throat and mouth of a person having the disease contain this germ in abundance, and the air of the sick-room is also usually infected with it. Everything in the sick-room should be regarded as infected.



This germ may live outside of the body, in clothing, rags, on toys, etc., for a long time, possibly years, and may thus be carried any distance. It may also be carried by dogs or cats admitted to the sick-room.

It may be present in the secretions from the throat or nose for some days (possibly two or three weeks) after the patient appears to be entirely well.

Filth does not cause diphtheria, but persons living amid filthy surroundings, in dark, damp, badly ventilated houses, are more apt to contract the disease, and usually have it in a more malignant form than those better situated. The germ is also perpetuated in filthy places.

#### THE PREVENTION OF DIPHTHERIA.

Attention should first be given to the sanitary condition of the home. Cleanliness, with sunlight and fresh air in abundance may be had in the humblest household; and, more than anything else, are the means of securing good health. Filth of all kinds about the house and yard should be removed rather than to attempt to disinfect it.

But healthy children, in healthy homes, may contract diphtheria, and when the disease appears in a community parents should take every precaution to keep their children away from possible sources of contagion, and should themselves avoid going near the disease. Adults, as stated, usually have diphtheria in mild form, and may have the disease without knowing or being aware of it. During the prevalence of diphtheria, adults having a sore throat should avoid children until a physician has pronounced their disease to be not diphtheria.

When diphtheria makes its appearance in a community the safety of the public depends upon the promptness and strictness with which the local health authority enforces quarantine measures. By quarantine is meant the isolation of persons sick with the disease and those intimately associated with them. Parents should therefore give the board of health and health officer all possible assistance and support in enforcing proper preventive measures.

The laws of Ohio require the attending physician to report every case of diphtheria within twelve hours after becoming aware of the nature of the disease.

The health officer is required to give public notice of the disease by a placard, and no one is permitted to enter or leave the house (excepting the physician and necessary attendants) without the written permission of the health officer or board of health.

When the patient has recovered, or after death, it is the health officer's duty to see that disinfection is properly carried out.

If these measures were promptly and strictly enforced in all cases, diphtheria, to a very large extent, would be prevented, and the lives of hundreds of children, which are needlessly sacrinced each year in this State, would be saved.

# SPECIAL MANAGEMENT OF CASES.

When diphtheria is present in a community, a child with sore throat and fever should be regarded with suspicion. If at school, such a child should be sent home at once, with a note to the parents requesting them to have the child examined by a physician. These suspected cases should be isolated as soon as possible, and kept apart from other children until a physician pronounces the disease not diphtheria.

As soon as a child is known to have diphtheria it is advisable to take it to a room prepared by removing everything not needed for the patient or his attendants. It should be kept in mind that everything in the room must be finally disinfected, so the less in it the better. The room should of course be prepared before the child is taken into it.



If there are other children in the house they may escape the disease by proper precautions.

The room in which the patient is isolated should be upstairs, preferably, and as remote from living rooms as possible. A sheet kept wet with a disinfectant and hung over the door of the sick-room will protect other parts of the house against infection.

The mother or nurse should not mingle with other members of the family, if avoidable, and if not, should wear a washable garment completely protecting the body, with a cap for the hair, to be removed when leaving the sick-room.

The hands of the nurse should be thoroughly washed in the disinfectant solution each time the patient or anything which has been about the patient, is handled.

The remains of food or drink which have been in the sick-room should be burned or disinfected. The nurse, if possible, should avoid eating or drinking in the sick-room.

The patient should be kept isolated for two weeks after throat symptoms have disappeared, for reasons previously stated.

If death occurs, the body, as soon as possible, should be wrapped in a sheet wet with the disinfectant, and should not be again exposed to view. The law requires its burial within twenty-four hours after death, except by written permission of the board of health. The funeral must be strictly private, and no child allowed to attend.

#### DISINFECTION.

By disinfection is meant the destruction of the germ or organism which causes the disease.

Dissolve corrosive sublimate in hot water in the proportion of one drachm to one gallon, and add one drachm of permanganate of potash to give color to the solution.

Label POISON.

The germs of diphtheria are readily killed by this solution. They are also killed by boiling water.

The discharges from the throat, mouth and nose are specially dangerous and must be cared for at once. It is well to prepare a number of squares of old soft cloth (old sheets or pillow cases) to receive these discharges. The cloths should be burned as soon as soiled. If there is no fire in the sick-room it is convenient to have a small tub containing the disinfectant solution to receive these cloths until they can be carried from the room and burned.

The soiled clothing, bed linen, towels, napkins, etc., may be disinfected by boiling for one hour. They should be carried from the sick-room wrapped in a sheet wet with the disinfectant and placed in boiling water without unwrapping.

Dishes, knives, forks, spoons, etc., brought into the sick-room should be, on removal, at once placed in boiling water and boiled for half an hour.

When the patient has recovered, and before he leaves the sick-room, he should be bathed from head to foot in the disinfectant solution half of the strength given above, special care being given to the hair. Keep the disinfectant out of the eyes.

Before removing quarantine the sick-room, and any other rooms which the patient has occupied, must be disinfected. This must be done with intelligence and care so that nothing which may possibly be infected shall be missed. The failure to properly carry out disinfection often causes the disease to linger in a community year after year.

Disinfection should be done under the personal supervision of the health officer or his assistant.



Anything which may be wetted without injury may be disinfected and saved by simply boiling it in water for one hour. Care must be taken that the article to be disinfected is entirely covered by the boiling water.

Rooms, and articles which cannot be boiled, should be fumigated by sulphur. The room must be as nearly air-tight as possible. Stop all cracks about doors and windows. Close fire-places. Closets opening into the room should have their doors left open. Clothing, bed covers, etc., should be hung on lines stretched across the room. Do not pile articles together, but arrange them so as to expose the greatest possible amount of surface to the sulphur fumes. Carpets may be fumigated on the floor.

Use not less than four pounds of roll sulphur broken into small pieces for a room ten feet square, and a proportionately larger amount for larger rooms. Put the sulphur in an iron pot or pan on bricks placed in a tub containing a few inches of water. This will avoid danger from fire, and furnish moisture, which increases the efficacy of the sulphur fumes. Pour alcohol on the sulphur and set it on fire. Leave the room quickly, and allow the room to be closed for twelve hours, where possible.

The room should then be thorough'y aired, and should not be occupied for several days, especially by children.

The clothing, bed covers, carpets, etc., should be hung up out of doors, and thoroughly beaten and shaken. The floor, walls, ceiling, windows and furniture should be washed with the disinfectant solution, and then with soap and hot water. If the walls and ceiling are papered, they may be cleaned by rubbing with bread as used by paper hangers.

This circular has been prepared for the information of the public, and any desired number of copies will be furnished free to health authorities, or to other persons who will agree to have them properly distributed.

Address the Secretary of the State Board of Health, Columbus, Ohio.

## ANTITOXIN TREATMENT OF DIPHTHERIA.

The past year has witnessed a very marked increase in the use of antitoxin in the treatment of diphtheria, judging by reports from physicians and from newspaper accounts. There is no way at present of knowing the number of cases that were so treated in Ohio, nor the results of such treatment, but reports from other states seem to show that this new remedy has had a marked effect in lowering the mortality from this very fatal disease.

The annual report of the State Board of Health of Massachusetts for 1895 gives the results of the antitoxin treatment of 262 cases of diphtheria in which the diagnosis was sustained by bacteriological examination, with a death rate of 13.7 per cent. The average death rate from this disease in Massachusetts for the five years prior to the introduction of antitoxin was 25 per cent. In 273 cases reported as diphtheria, but in which no bacterial examination was made, the death rate was 11.7 per cent.

The American Pediatric Society collected information concerning 5,576 cases of diphtheria treated with antitoxin with a mortality of 12.8 per cent. including 218 cases which were moribund at the time of the first injection, or died within twenty-four hours thereafter. The results

from the use of the diphtheria antitoxin in European hospitals have been nearly, if not quite, as favorable, so that, as was said by Virchow early in the discussion on the use of this new remedy, the "brute force of figures" leaves no escape from the conclusion that in antitoxin we have a remedy which, if properly used, will lower the death rate from diphtheria to a very considerable extent.

A departure from custom on the part of boards of health may be noted in connection with the use of antitoxin. Prior to its introduction boards of health were concerned only in the *prevention* of disease, but several state boards of health and numerous municipal boards have undertaken to supply antitoxin free of charge to physicians for the treatment of those who are unable to pay for it. This is undoubtedly a wise measure where the health authorities are able to assure themselves of the strength and purity of the remedy which they supply; and to this end many of the boards of health have fitted up laboratories for the production of antitoxin.

#### TYPHOID FEVER.

During the later summer months there was an unusual prevalence of typhoid fever, affecting to a much greater proportional extent the villages and rural districts where wells are in use.

The fact seems to be well worked out that typhoid fever in the great majority of cases is communicated through the drinking water, but while this has become, in a great measure, common knowledge, the utmost carelessness and indifference are still shown by many people in regard to the use of polluted water.

As an example of this may be cited the little village of Hannibal on the Ohio River in Monroe county, where an outbreak of typhoid fever occurred which was clearly traced to one well. The village had been free from typhoid fever for years when a man, taken sick with the disease away from home, was brought there and taken to his father's. The well at this house is near the kitchen door and the privy is near the well. The stools of the patient were thrown into this privy and the well became infected. This well was used by a large number of people, and suddenly a number of them were taken sick with typhoid fever, about forty cases developing within ten days. Nearly eighty cases occurred, most of them being traced to this well. In spite of this, public sentiment was against closing the well, and it was done by order of the State Board of Health, but under protest. A chemical examination showed that the well was being polluted by leachings from the adjacent privy vault. A report of this was made to the local authorities, but the well. after being closed for a time, was reopened by one of the citizens, and again went into general use.

The serum diagnosis of typhoid fever is attracting the attention of the health officials and physicians all over the world. This disease is often very difficult of recognition. It has been shown to be due to a minute plant organism, and this organism behaves peculiarly when placed in the blood serum, or in a solution in which has been dissolved a drop of dried blood, taken from a typhoid fever patient. The typhoid germ or organism when placed in a drop of water, or in the blood serum of a patient suffering from some disease other than typhoid fever, may be seen, under the microscope, to move about actively, the germs remaining separated. But when placed in the blood serum of a typhoid fever patient, or in a solution containing a drop of blood taken from such a patient, the germs soon group themselves in little clusters and become motionless. It has been found possible to diagnose typhoid fever with great certainty by this method, and a number of boards of health having laboratory facilities have added much to their usefulness by taking up this new work.

It is claimed that Asiatic cholera may be recognized in the same manner, and it is probable that this new method of diagnosis may yet be applied to other bacterial diseases.

The time has now come when laboratories for chemical and bacteriological work must form part of the equipment of a progressive State Board of Health. Much of the work for the state at large could be done at a central laboratory under the direct control of the State Board of Health, but for many purposes laboratory assistance should be nearer at hand, and each of our large cities should provide a laboratory for its board of health. This will undoubtedly come as the people are fast reaching the conviction that money spent in the prevention of disease brings larger returns than any other form of municipal investment.

## WATER SUPPLIES AND SEWERAGE.

The year has been an active one as regards the introduction of water supplies and sewerage, in spite of depressed financial conditions, which have retarded public improvements, and made difficult the placing of bonds authorized for such work.

Plans for new or additional water supplies for the following places have been submitted to the Board for approval: Ashtabula, Bucyrus, Rockford, Bluffton, Ripley, Mt. Vernon, Greenwich. Xenia, Oxford. Tippecanoe City, Delphos, St. Marys, Sidney, Hiram, Norwalk, Mineral Point, Lynchburg, Loveland, Cambridge, Canal Dover, Millersburg, Elyria, Delaware, Medina, Marion and Shelby. Lorain applied to the Board for a scheme of filtration of the public water supply.

Plans for sewerage, or for change of or additions to existing systems of sewerage, for the following places were submitted to the Board for approval: Martin's Ferry, Dayton, Chillicothe, Sidney, Toledo, Cleveland and Willoughby.

Plans for sewage purification work at the Ohio State Reformatory and at the Fairmount Children's Home at Alliance were also submitted to the Board for approval.

The Board has pursued its policy of guarding the streams against sewage pollution, and while it feels that the time is not yet ripe for enforcing a rule prohibiting the turning of all raw sewage into water courses or lakes, it views with pleasure a growing public sentiment in that direction which, there is hope, will, before many years, enable it to accomplish this most desirable end.

In this connection it is encouraging to note the attention that is being given to the purification of sewage. As stated in the last report, plans for the purification of the sewage of the city of Fostoria were approved by the Board. Owing to various complications work there was delayed for a considerable time, but several of the filtration beds have now been constructed, and there is good prospect that the work will soon be completed.

The Fairmount Children's Home near Alliance, acting on the recommentation of the Board, has established sewage purification.

The managers of the Ohio State Reformatory at Mansfield very wisely concluded to establish a sewage disposal system of their own rather than to seek an outlet into the sewers of the city of Mansfield. Plans were approved by the Board for a system of purification by filtration through prepared beds, and the work is well under way and will soon be completed. This has been an object lesson for the city of Mansfield, which is maintaining a nuisance by discharging sewage into a small stream, and an engineer has been engaged to prepare plans for purifying the sewage of that city.

The State Hospital for Insane at Toledo was notified by the board of health of Toledo to abate a nuisance caused by turning its sewage into a small stream which flows through that city. The hospital board of trustees presented the matter to the General Assembly and were given an appropriation of \$20,000 for the purification of its sewage. A committee appointed to investigate the matter of sewage disposal at public institutions, after visiting a number of places, reported in favor of land disposal. An engineer has been engaged to prepare plans, and work will be started soon.

The Miami University at Oxford has consulted the Board with reference to methods for disposing of the sewage of that institution.

It is most fitting that the State should be in the lead in this movement to protect her streams against sewage pollution, and the next few years will doubtless witness many needed improvements in this direction

# REGULATION OF PLUMBING.

The law to regulate the construction of plumbing in all cities having water works or a sewerage system, and for the examination and licensing

of all plumbers who expect to do plumbing work in such cities, was enacted by the last General Assembly. A board of examiners and one or more inspectors of plumbing are to be appointed in each of these cities by the board of health, and the board of health is required to "prescribe rules and regulations for the construction, alteration, and inspection of plumbing and sewerage placed in, or in connection with any buildings in such city or town, which shall be approved by ordinance by the council."

This act was passed at the instigation of the plumbers of the large cities, and was undoubtedly primarily intended by them for their own protection. At the same time, like laws regulating the practice of medicine, dentistry or law, the public is protected against injury by incompetent men.

Although the law has been in operation but a short time some serious defects in its provisions have appeared, which should receive attention. The act was framed by the plumbers of large cities, and is perhaps suitable and adequate for such places, but it does not fit the majority of cities and villages of five or ten thousand inhabitants which are included in its provisions. The board of examiners consists of the president of the board of health, (who is the mayor) the inspector of buildings, and three "practical plumbers," two master plumbers and one journeyman plumber. In cities where-the requisite number of plumbers cannot be found, reputable physicians may be appointed instead. In most of the small cities there are not more than one or two plumbers in business. These would have to be appointed on the board of examiners, and if licensed, as required by the act, would not only escape examination, or help examine themselves, as is the case with all members of these examining boards, but would vote on the issuing of their own license. The plumbing inspector must be a "practical plumber," which is proper enough, but in cities where there is but one plumber, he would practically examine himself, license himself, and inspect and pass upon his own plumbing work.

It is obvious that the act can give but little protection against inferior or dishonest plumbing work in small cities, and it should be amended so as to require of all plumbers the same evidence as to competency, and so that no one shall inspect and pass upon his own work. This might possibly be accomplished by appointing a State Board of Examiners of plumbers, and authorizing such board to appoint an inspector of plumbing to inspect and report upon the plumbing done in cities where a proper inspector can not be found. If a state examining board examined all plumbers there would be much less likelihood of licensing incompetent men in the smaller cities, and this would give greater assurance of attaining the only object the state can have in the enforcement of the plumbing act, which is to protect the public against the evils arising from defective plumbing.

<sup>3</sup> Ex. Doc. 2

To provide a guide for boards of health in framing rules and regulations governing plumbing, and to insure, so far as possible, uniform rules throughout the state, the State Board of Health adopted the following rules and regulations for the construction of plumbing, and recommended them to the local boards of health for adoption; a number of the large cities have adopted them:

## RULES AND REGULATIONS FOR THE CONSTRUCTION OF PLUMBING.

RECOMMENDED BY THE STATE BOARD OF HEALTH, JULY, 1896.

SECTION 1. No person or persons shall carry on the business of plumbing or engage in conducting plumbing or house drainage until he or they shall obtain a license from the board of health of the city or village in which he or they have an established place of business.

- SEC. 2. No person or persons shall engage in the business of sewer-tapping until he or they shall obtain a license from the board of health of the city or village in which he or they propose to conduct said business. Such license shall be issued only after said person or persons shall have satisfied said board as to his or their proper qualification; and any person or persons holding such permit shall forfeit the same by failure to comply with any of the rules or regulations governing sewer-tapping adopted by said board.
- SEC. 3. Every person or persons making an application for a license to carry on the business of plumbing or sewer-tapping shall accompany his or their application with a bond, signed by two or more sureties, to be approved by the said board of health, in the sum of five hundred dollars, conditioned that he or they will indemnify and save harmless said city or village from all accident or damage caused by negligence either in the execution or protection of his work, or for any unfaithfulness or inadequate work done under and by virtue of his license: and that said license as such will also conform to all the conditions and requirements of the city or village for his or their government.
- SEC. 4. The inspector who is duly appointed as provided by these rules and and regulations or existing laws and ordinances, shall have authority and power, whenever in his opinion any plumber or sewer-tapper, in doing any plumbing or house drainage or sewer-tapping, violates any provision, rule or regulation or the ordinances of said city or village, to suspend said license; and it shall be the duty of the officer making such order of suspension to report the same to the board of health; and if the said board shall be of the opinion that the charges are well founded, they shall revoke said license subject to and as provided by an act entitled "An act to promote the public health and regulate the sanitary construction of house drainage and plumbing," passed April 21, 1896.
- SEC. 5. It shall be the duty of the owner, architect or other duly authorized person to furnish a plan that shall show the entire systems of plumbing and sewerage of a building, which shall be approved by the inspector before any portion of the work shall be executed; and every plumber or sewer-tapper, before doing any of the work in a building, shall, except in case of repair, receive a certificate from the inspector that the plans and specifications prepared by the architect or owner for such work have been approved by the inspector, and are in accordance with these rules and regulations. Plumbing work which does not add additional fixtures or cause the entire renewing or remodeling of any soil or waste pipes, or changing of the system of using such pipes, shall be considered a repair.



- SEC. 6. All materials must be of good quality and free from any defect. The work must be executed in a thorough and work manlike manner. The arrangement of soil and waste pipes must be as direct as possible.
- SEC. 7. The drain, soil and waste pipes and the traps must, if practicable, be exposed to view for ready inspection at all times and for convenience in repairing. When necessarily placed within partition or in recesses of walls, soil and waste pipes should be covered with wood work so fastened with screws as to be readily removed; in no case shall they be absolutely inaccessible. It is recommended to place soil and other vertical pipes in a special shaft between or adjacent to the water closets and bath-room, and serving as a ventilating shaft for them. This shaft should be at least two and one-half feet square. It should extend from the cellar through the roof and should be covered by a "louvered skylight." It should be accessible at every story, and should have a very open but strong grating at each floor to stand upon. Shafts not less than three square feet in area are required in tenement houses to ventilate interior water closets.
- SEC. 8. Every building shall be separately connected with the public sewer when such sewer is provided and abuts said building on street, avenue or alley, the same to be accessible to said building. The said line of sewer may be laid by a licensed sewer-tapper to a point not within three feet of outside foundation of building; all connections must be made by a properly licensed plumber.
- SEC. 9. Drains shall have a fall not less than one-eighth of an inch per foot, and should be supplied with a suitable trap, placed with an accessible cleanout, either outside or inside the foundation wall of the building, except where the separate system of sewerage, with proper arrangements for daily flushing, is in use. Each house drain, when trapped, shall be provided with a fresh air inlet, not less than four inches in diameter, on the house side of the trap, extending to the external air in such locality as will not be detrimental to the inmates of the house, in the judgment of the inspector, or it may be carried up above the roof on inside of house.
- SEC. 10. Rain-water leaders, when connected with sewer or drain pipes, shall be suitably trapped and must not open near a window or light shaft; and no rain-water leader can be used for any other purpose and must be of iron soil pipe when inside a building.
- SEC. 11. Where there is no city sewer on public thoroughfare which the building is abutting to, a privy vault may be built by special permit, as follows: It must be lined with hard brick walls not less than nine inches in thickness, laid in cement mortar and proved to be water tight and of such size as may be prescribed by the board of health. Privy vaults shall not be located within two feet of party lines or within twenty feet of a building when practicable.
- SEC. 12. No connection from any cess-pool or privy vault shall be made to any sewer, nor shall any water closet or house drainage empty into a cess-pool or privy vault where a sewer is accessible. It at any time a city or village shall construct a sewer which is accessible to abutting property, all systems of drainage shall be connected to same within a period not exceeding ninety days; and all special permits for vaults, cess-pools or any other system of drainage shall become null and void, and the building shall be subject to these rules and regulations to their full extent and meaning.
- SEC. 13. The house drain must be of extra heavy cast-iron pipe when within a building under ground. It must be laid in a straight line, if possible; and all changes in direction must be made with curved pipes, and all connections with Y branch pipes, and one-eighth bends. When water closets charge into it, the house drain shall be not more than five inches nor less than four inches in diameter except by special permission of the board of health.



SEC. 14. All house drains must be inspected and approved by the inspector; and when put in and covered without due notice to him, must be uncovered for inspection at his direction.

SEC. 15. Sub-soil drains shall be constructed as follows: By a system of French drains or field tile, and conveyed to a catch basin, same to be flagged or arched over. The outlet pipe shall be properly trapped and connected with the house drain, and shall also be provided with a back pressure valve of required size, the same to be not less than four inches.

SEC. 16. Slop sinks may be used in floor of cellars, provided they are placed above a trap not less than four inches in diameter, and with not less than three inches of seal, and a tight connection made thereto; also said trap must be so placed as to be frequently supplied with clean water to prevent same from drying out, and to be so located that it will not become choked with slack coal or any other substances which are likely to collect in a cellar.

SEC. 17. Every soil and waste pipe must be of cast iron, lead, copper or brass, and where it receives the discharge of fixtures upon any floor for water closets or waste water, must extend at least two feet above the highest part of the roof or coping, of undiminished size. It must not open near a window or an air shaft which ventilates living rooms, and is to be increased at a point where it passes through the roof to one size larger; in no case to be of less than four inches for above roof, and to have a copper or wire basket on open end, securely fastened to pipe. Where pipe passes through roof, roof shall be made water tight. There shall be no traps on vertical soil or waste pipe lines or other lines, except main line as it enters the building—house trap.

SEC. 18. The minimum diameter of soil pipe for water closets shall be four inches. A vertical waste pipe, into which a line of kitchen sinks discharge, shall be at least two inches in diameter, with one inch and a half branches to fixtures.

SEC. 19. All cast iron pipes must be sound, free from holes or other defects, and of uniform thickness of not less than one-eighth of an inch for a diameter of two, three or four inches, or five thirty-seconds of an inch for a diameter of five or six inches; and in case the building is over sixty-five feet in height above the curb, the use of what is known as "extra heavy" pipe and corresponding fittings shall be required.

SEC. 20. Traps must be protected from siphonage or air pressure; and the waste pipe leading from them ventilated by a special air pipe in no case less than two inches in diameter for water closet traps, which must be connected beneath the floor, and one and a half inches for other traps; and ventilation pipes less than four inches in diameter must not be carried up outside the building. In buildings more than four stories in height the vertical bent pipes for water closets must be at least three inches in diameter, with a two-inch branch for each trap, and for traps of other fixtures, not less than two inches in diameter, with branches one and a half inches in diameter, unless the trap is smaller, in which case the diameter of branch vent pipes must be at least equal to the diameter of the trap. In all cases vertical bent pipes must be of cast iron, brass or lead; and only one trap may be vented off one and one-fourth inch pipe. These pipes must either extend two feet above the highest part of the roof or coping, the extension to be not less than four inches in diameter and capped with copper or brass wire basket, or they may be branched into a soil pipe not less than four feet above the highest fixture. They may be combined by branching together those which serve several traps. These air pipes must always have a continuous slope to avoid collecting water by condensation. No trap vent pipe shall be used as a waste or soil pipe. Brass, copper or lead waste or vent pipes may be used. Changes in direction in iron pipes shall be made with curved pipes, and connections with horizontal pipes shall be made with



Y branches or sanitary T's. No brick, sheet metal, earthen ware or chimney flue shall be used as a sewer ventilator, nor to ventilate any trap, drain, soil or waste pipe.

SEC. 21. All cast iron soil, waste or vent pipes, before they are connected, must be thoroughly coated inside and outside with coal-tar pitch, applied hot, or some equivalent substance.

SEC. 22. All drain and anti-syphon pipes of cast iron shall be sound, free from holes, and of a uniform thickness, and shall conform to the following relative weight:

STANDARD. 2 pipe, 4 lbs. per foot.				EXTRA HEAVY. 2 pipe, 5½ lbs. per foot.					
									3
4	**	9	44	**	4	"	13	**	"
5	"	12	46	44	5	**	17	"	44
6	"	15	"	66	6	4	20	**	44
ě	**	25	"	**	8	64	331/2	66	44
10	**	35	"	"	10	**	45	44	41
12	"	45	44	66	12	"	54	"	66

All fittings for soil, waste or vent pipes must be of cast iron, of corresponding weights and conditions as above mentioned for soil pipes. Where lead pipe is used to connect fixtures with vertical soil or waste pipes, or connect traps with vertical vent pipes, it must not be lighter than the grade called "extra light."

SEC. 23. All connections of lead with iron or brass on sewer side of traps must be made with brass ferrule or nipple of the same size as the lead of the pipe, put in the hub of the branch of the iron pipe and calked in with lead. The lead must be attached to the ferrule or nipple by a wiped joint. All connections of lead pipe must be wiped joints. All joints in iron drain pipes, soil pipes, and waste pipes must be calked with oakum and lead.

SEC. 24. Every water closet, urinal, sink, basin, bath, and every tub or set of tubs, must be separately and effectively trapped. Traps must be placed as near the fixtures as practicable, and in no case shall a trap be more than two teet from the fixtures, except for outside hopper closets. In no case shall the waste from a bath tub or other fixtures be connected with the water closet trap. Overflow pipes from fixtures must in each case be connected on the inlet side of the trap.

SEC. 25. All soil, waste and vent pipes must be tested by the plumber in charge, with a water test, as directed by the inspector and in the presence of the inspector, due notice having been given, stating place and time when ready for such inspection, all openings having been closed by the plumber or person in charge of the work. Pipe joints, fittings, or fixtures thus shown to be defective or wrongly placed, must be replaced within three days and again tested by the inspector. None of the said pipes shall be covered from sight till they have been shown to stand the test prescribed to the satisfaction of the inspector. After the plumbing work of a building has been tested as directed, no alteration will be permitted, except upon written application of the owner or plumber in charge of the work. The said inspector in all cases shall respond promptly. Permits must be taken out before work will be inspected. Notice must be sent to the said inspector when work is sufficiently advanced for inspection. No inspection will be made on legal holidays.

SEC. 26. Every safe under a wash basin, bath, urinal, water closet, or other fixtures, must be drained by a special pipe not directly connected with any soil or waste pipe, drain, or sewer, but discharged into an open sink or upon the cellar floor or outside of the house. The waste pipe from a refrigerator shall not be directly connected with the soil or waste pipe, or with the drain or sewer,

or discharged into the soil; it should be discharged into an open sink. Such waste pipes should be so arranged as to admit of frequent flushing and should be as short as possible and disconnected from refrigerator. The sediment pipe from kitchen boilers must be connected on the inlet side of the sink trap, if connected to waste pipe. Waste tubes from stop cocks shall not be connected to any soil or waste pipe. No steam exhaust or blow off pipe from a steam boiler will be allowed to connect with any soil or waste pipe, or directly with any house drain. They should discharge into a tank or condenser, the waste from which, if to be discharged into a sewer through the house drain, must be trapped and be connected on the sewer side of the running trap.

SEC. 27. Pan water closets shall not be used; and all water closets within a building shall be supplied with water from special tanks or cisterns which shall hold not less than six gallons of water when up to the level of the overflow pipe for each closet supplied, excepting automatic tanks, which shall hold not less than five gallons of water for each closet supplied. The water in said tanks shall not be used for any other purposes. The flushing pipes of all tanks shall not be less than one and one-quarter of an inch in diameter inside. A group of closets may be supplied from one tank, but water closets on different floors shall not be flushed from one tank.

SEC. 28. No water closet except those placed in a yard or open court, shall be supplied directly from the city supply pipes. When so placed it shall be so arranged as to be conveniently and adequately flushed, and their water supply pipes and traps shall be protected from freezing. The waste water from the hopper cock or valve shall be conveyed to the drain through a three-eighth inch brass or lead pipe properly connected. The enclosure where such water close is located shall be ventilated by slatted openings or vent through roof of adequate size.

SEC. 29. Water closets must not be located in the sleeping apartments of any building, or in any room or apartment which has not a direct communication with the external air either by a window or an air shaft, having an area to the open air of at least four square feet, without obtaining a special permit.

SEC. 30. All water closets within a building using lead connections shall have a cast-brass flange not less then three-sixteenths of an inch in thickness, fitted with a pure rubber gasket of sufficient thickness to insure a tight joint, fastened to the closet and secured to the floor.

SEC. 31. Where latrines are used, they shall be of iron, properly supplied with water, and located in yard at least twenty feet from building, when practicable.

SEC. 32. The owner or other party having an interest in any building, staging, or other structure, or anything attached to or connected with a building or structure, which shall be unsafe so as to endanger life, shall immediately, upon notice received from the inspector, cause the same to be made safe and secure or taken down; and where the public safety requires immediate action, the inspector may enter upon the premises with such assistance as may be necessary, and cause the said structure to be secured or taken down without delay, at the expense of such owner or party interested.

SEC. 33. Whenever any person, firm, corporation, exposition commission, or the officers of the said city or village shall wish to erect a public building or buildings for exhibitions, shows or other purposes, and desire to use in the same plans any materials which do not conform to the requirements of this act, the same may be authorized by the board of health of said city or village, provided the plans and specifications for the same meet with the approval of the said inspector.



SEC. 34. All the officers appointed under this act, (an act to promote the public health and regulate the sanitary construction of house drainage and plumbing, passed April 21, 1896), shall, so far as may be necessary for the performance of their respective duties, have the right to enter any building or premises in said city or village.

### AN ACT

TO PROMOTE THE PUBLIC HEALTH AND REGULATE THE SANITARY CONSTRUCTION OF HOUSE DRAINAGE AND PLUMBING.

SECTION 1. Be it enacted by the General Assembly of the State of Ohio. That any person, firm or corporation now, or that may hereafter be engaged in, or working at the business in this state either as master or employing plumber, or as journeyman plumber shall first secure a license therefor, in accordance with the provisions of this act.

SEC. 2. Any person desiring to engage in, or work at, the business of plumbing, either as a master or employing plumber, or as a journeyman plumber, shall apply to the president of the board of health or other officer having jurisdiction in the locality where he intends to engage in, or work at, such business, and shall at such time and place as may be designated by the board of exmainers hereinafter provided for, to whom such application shall be referred, be examined as to his qualifications for such business. In case of a firm or corporation, the examination and licensing of any one member of such firm, or the manager of such corporation, shall satisfy the requirements of this act.

SEC. 3. There shall be in every city and each town of five thousand (5,000) inhabitants, or more, and in each town having a system of water supply or sewerage, a board of examiners consisting of the president of the board of health; and the inspector of buildings of said city or town if any there be, and three (3) members who shall be practical plumbers; (two shall be master plumbers, one shall be a journeyman plumber). The president of the board of health and the inspector of buildings shall be members cx-officio of said board and serve without compensation; provided, that in localities where the required number of plumbers cannot be secured, such vacancies may be filled by the appointment of reputable physicians. Said members shall be appointed by the board of health, or if there be no board of health, then by the health officer of said city or town, within three (3) months from and after the passage of this act, for the term of one (1) year, said appointment to date from the first day of August, A. D., 1896, and thereafter annually; and said appointed member of such board shall serve without compensation; provided, that if in any city or town there is no inspector of buildings, said board of health shall appoint a fourth member of said board of examiners, who shall be a practical plumber, and whose term of office shall be the same as heretofore provided for said three (3) members.

SEC. 4. Said board of examiners shall, within thirty (30) days after the appoint ment of said members, meet and organize by the selection of a chairman, and then shall designate the time and place for the examination of all applicants desiring to engage in or at the business of plumbing within their jurisdiction. Said board shall exemine said applicants as to their practical knowledge of plumbing, house drainage and plumbing ventilation, and if satisfied of the competency of the applicant, shall so verify to the board of health. Such board shall thereupon issue a license to such applicant, authorizing him to engage in, or at, the business of plumbing, either as a master or employing plumber, or as a journeyman plumber. The fee for the license for a master or employing plumber, shall be five (\$5) dollars; for a journeyman plumber shall be one (\$1) dollar. Said license shall be valid and have



force throughout the state, and shall be renewed annually upon payment of a fee of fifty cents. In case of removal beyond the jurisdiction of the board issuing the original license, it may be renewed by any board having like authority.

SEC. 5. The board of health of each city or town mentioned in section three (3) of this act, shall within three (3) months from and after the passage of this act, appoint one or more inspectors of plumbing and such appointment shall be subject to the approval of the council of such city or town (it such appointment has not already been made), who shall be practical plumbers, and shall hold office until removed by such board of health for cause, which must be shown. The compensation of such inspectors shall be determined by the said board of health, and be paid from the treasury of their respective cities or towns. Said inspector so appointed shall inspect all plumbing work for which permits are hereafter granted, within their respective jurisdiction, in process of construction, alteration or repair, and shall report to said board of health all violations of any law, ordinance or by law relating to plumbing work, and also perform such other appropriate duties as may be required by said board.

SEC. 6. The board of health of each city and town of five thousand (5,000) inhabitants or more in this state, and every town having a system of water supply or sewerage, shall within six (6) months from the passage of this act prescribe rules and regulations for the construction, alteration and inspection of plumbing and sewerage placed in, or in connection with any buildings in such city or town; which shall be approved by ordinance by the council, of such city or town and the board of health shall further provide that no plumbing work shall be done, except in the case of repairs or leaks, without a permit being first issued therefor, upon such terms and conditions as such board of health of said city or town shall prescribe.

SEC. 7. Any person violating any provision of this act shall be deemed guilty of a misdemeanor, and shall be subject to a fine not exceeding fifty (\$50) dollars, nor less than five (\$5) dollars for each and every violation thereof. The license of any master or journeyman plumber may at any time be revoked for incompetency, dereliction of duty or other sufficient causes after a full and fair hearing by a majority of the examining board, but an appeal may be taken from said examining board to the State Board of Health, and license may be revoked by the examining board provided for in section three (3) of this act.

SEC. 8. All money derived from the examination of applicants shall go to the board of health at the place where the applicant was examined.

SEC. 9. All acts and parts of acts inconsistent herewith are hereby repealed.

SEC. 10. This act shall take effect from and after its passage.

Passed April, 21, 1896.

## NUISANCES.

A large number of complaints have been received of nuisances, and the Board has been called upon to abate them. In most instances these have been referred to the local health authorities with the request that the complaint be investigated and proper action be taken to abate the nuisance, should one be found. It has been necessary to explain to the person making the complaint that the State Board of Health has not been given power to abate nuisances, but that this matter is placed by law in the hands of the local health authorities. Section 2116 of the Revised Statutes provides that "the board of health shall abate and remove all nuisances within its jurisdiction."

It was a wise provision to place this duty upon the health authorities of the place where the nuisance exists. A nuisance, in most instances, is a purely local matter, affecting a limited number of people in the community in which it exists, and it is not a matter which concerns the state at large. On the contrary a contagious disease in any community threatens the entire state; and the State Board of Health has been given superior powers which may be brought into use if the local authorities fail to take proper steps to prevent its spread. Quite frequently it is stated in the complaint that the local board of health has been appealed to, but that no relief has been given. In such cases it is usually sufficient to call the attention of the local board to its duties under the law in order to have the nuisance abated. Where this measure fails, the matter, if of importance, is personally investigated by a committee of the State Board, and a satisfactory adjustment is usually reached. In other cases the local health authorities appeal to the Board for advice and assistance in abating a nuisance. This is given by correspondence, where possible, and where not, a personal visit is made. While nuisances are being continually created there has been, through the agency of local boards of health, a great improvement in this unsanitary feature of towns within the last few years.

## LOCAL BOARDS OF HEALTH.

There are now 1,745 reported organized boards of health in Ohio. This leaves eighty-nine villages and 235 townships in which no board of health has been reported as organized.

There has been a gradual but constant increase in the efficiency of the local boards of health. A higher appreciation is being manifested by the public of the work in which they are engaged, and a higher class of men is being appointed to membership.

The payment of the expenses of boards of health is a matter which continues to create difficulty in many places. If there is a lack of sympathy between the council and the board of health, as frequently happens, the board is greatly hampered by having bills for legitimate and necessary expenses disallowed or cut down. In several instances the entire board of health have resigned because of such difficulty. It would be much better, in the judgment of this Board, if a sanitary fund were established in each city and village and placed under the direct control of the board of health. As council appoints the members of the board of health the expenditure of this fund could be safely guarded by appointing suitable men on the board. As the state is vitally interested in maintaining a high efficiency of its health service, every encouragement should be offered to these men who are giving, without compensation, their time and services for the public welfare.

There has been a marked improvement in health matters in rural districts, and the law constituting the trustees of the township a board of

health for the township has given the residents of agricultural districts much greater protection against disease. This has been specially noticeable with regard to diphtheria, which has prevailed extensively the past year in rural districts. Some complaint has been occasioned on account of some of the township boards having quarantined families having cases of this disease, without making any provisions for supplying them with the necessities of life. It is not contemplated by laws authorizing quarantine in contagious diseases that families so confined shall be supplied with such necessities at public expense, but boards of health are morally and legally bound to insure that such persons shall receive everything needed. It is to be remembered that quarantine is for the benefit of the public and not of the families quarantined. Boards of health may furnish to the quarantined indigent poor at public expense, medical attendance, medicine, food and all needful supplies, and such persons, when the additional misfortune of contracting contagious disease comes to them, should not be neglected.

A detailed account of the various operations of the Board during the year, together with mortality tables prepared from reports of local boards of health, may be found on subsequent pages.

# Secretary's Report.

Abstract of Proceedings of Meetings of the Board Held
. During the Year.

# JANUARY MEETING.

A regular meeting of the State Board of Health was held in Columbus at the office of the secretary, January 29, 1896.

Present: All members of the Board except Dr. Stanton. Dr. Wise presided.

On motion of Prof. Nelson, it was voted to dispense with the reading of the minutes of the last meeting.

The secretary presented his quarterly report, which, on motion of Dr. Miller was approved.

Messrs. Watt, city solicitor, Clark, city engineer, and Rakestraw, councilman, all of Toledo, appeared before the Board with a request to approve the outlets of sewers proposed for Auburndale and district No. 25, of Toledo.

On motion of Dr. Miller, amended by Prof. Nelson, it was voted to consider the request in executive session, and to require the application for approval to be placed in writing.

The committee on sewers of the council of Chillicothe came before the Board with a request to approve the outlet of a system of sewerage proposed for that city.

Dr. Miller moved that the request be considered in executive session. The motion was carried.

On motion of Prof. Nelson, the committee was requested to place its statement in writing.

The secretary, as chairman of the committee on vital statistics, presented a bill for the registration of vital statistics in Ohio. Dr. Miller moved to approve the bill. After some discussion, a motion by Dr. Kahle to lay on the table prevailed.

The secretary was instructed to present the financial needs of the Board to the finance committee of the House of Representatives.

Plans and a statement with reference to sewerage in Toledo were presented by Mr. Clark, city engineer.

Dr. Miller moved that the plans for the Auburndale sewer in Toledo be approved.

Dr. Kahle moved to lay the question upon the table.

The motion to table was carried.

Mr. Hartzell presented a report on a water supply proposed for the city of Norwalk.

On motion of Dr. Miller it was voted to adopt the report and approve the supply.

Dr. Kahle presented a report on an additional water supply proposed for the city of Sidney.

On motion of Dr. Miller it was voted to adopt the report and approve the supply.

Adjourned to 9 A. M. of the following day.

## SECOND SESSION.

The Board met at 10:15 A. M., January 30, 1896.

Present: All members excepting Prof. Nelson and Dr. Stanton, Prof. Nelson having been excused to go home. Dr. Stanton arrived soon after the Board was called to order.

The committee from Chillicothe presented a petition for the approval of a system of sewerage for that city.

Mr. Hartzell presented the following resolution, which was adopted: Resolved, That the outlet proposed for the system of sewerage for Chillicothe is not approved for the following reasons:

First—The outlet is in too near proximity to the inhabited portions of the city.

Second—No properly drawn plan of the proposed sewer system has been presented to the Board.

Third—No plans have been made for the purification of the sewage.

The question of approving the outlet for the proposed sewer in Auburndale was taken from the table.

The motion to approve was lost.

Mr. Geo. P. Hunter, of Warren, appeared before the Board in the interest of a bill to prevent the feeding of dead horses to hogs.

Dr. Miller moved that a committee be appointed to act with Mr. Hunter in preparing such a bill.

The motion prevailed, and the chair appointed Messrs. Hoover, Nelson and Probst.

On motion of Dr. Miller, it was voted to appoint Messrs. Hoover, Nelson and Probst as a legislative committee.

Dr. Hoover called up his resolution, offered at a former meeting, to amend the by-laws by abolishing all standing committees except the committees on finance and legislation. The resolution was adopted.

There being no further business the Board adjourned to meet the health officers and representatives of local boards of health in annual session.

C. O. PROBST, Secretary.

# APRIL MEETING.

The State Board of Health met in regular session at the Grand hotel, Cincinnati, April 22 and 23, 1896.

All members present. Dr. Wise in the chair.

Ou motion of Prof. Nelson it was voted to postpone the reading of the minutes of the last meeting.

Mr. D. E. Wright, director of public works of Cleveland, and Mr. C. G. Force, city engineer, submitted plans for sewerage for the city of Cleveland, and requested the Board's approval. They were requested to present the matter in writing.

The minutes of the last meeting were then read and approved.

Dr. Hoover reported that the Strawboard company at Circleville had been fined \$200 and costs for polluting the canal and river at that place and below, and given a definite time in which to permanently abate the nuisance.

The secretary presented his quarterly report, which, on motion of Prof. Nelson, was approved.

# QUARTERLY REPORT OF THE SECRETARY.

Mr. President:

I beg leave to submit the following report:

Five thousand copies of the proceedings of the January meeting of State and Local Boards of Health, were printed in the *Ohio Sanitary Bulletin*, and these were distributed as usual.

Smallpox has been entirely suppressed in the southeastern part of the state, where it was prevailing at the time of last meeting. Since that time the disease has appeared at Dayton, Lima and Zanesville.

A bill having been introduced in the Senate to amend the act establishing the State Board of Health so as to permit the city of Cincinnati to construct and extend its sewerage system without the approval of the Board, Dr. Stanton, Dr. Hoover, Prof. Nelson and myself appeared before the committee of the senate having the bill in charge, and presented arguments against its recommendation or passage. The bill has not yet been reported back by the committee, and there is little probability of its passage.

I desire to recommend that the quarterly bulletin published by the Board be changed to a monthly bulletin.

I would suggest that at the June meeting arrangements be made to hold a convention for the consideration of school hygiene, to which the superintendents of public schools should be invited.

The convention of this kind held by the Board several years ago, was highly successful, and many of the members present expressed an earnest wish that another such meeting should be called.

I have prepared a list of questions for discussion at the meeting, which will be presented, if desired.

The annual meeting of the National Conference of State Boards of Health will be held in Chicago, commencing June 10th. An interesting program has been provided.

A question of special interest for discussion is "What shall be done with immigrants who arrive on vessels infected with smallpox." This question was suggested by the recent scattering over the United States of immigrants arriving at Philadelphia and Baltimore on vessels having smallpox on board. I received the following telegram from Philadelphia, April 10:

DR. C. O. PROBST, Secretary of State Board of Health, Columbus, Ohio:

Twenty-three steerage passengers from steamship Illinois leave here today for the following places in your state: Cincinnati, Toledo, Niles. Mingo Junction, Cleveland, Toronto, Alliance, Hubbard and Berea. There was one case of varioloid on this vessel.

GEQ. PURVIANCE, Surgeon U. S. Marine Hospital Service.

On the 12th this telegram was received:

LOCUST POINT, BALTIMORE, MD. April 12, 1896.

Immigrants of steamship Crefield, on which one case of variola occurred, leave here today for Cincinnati, Cleveland, Sandusky, Toledo, Youngstown, Dayton and Grafton.

GEO. W. STONER, Surgeon M. H. S.

In each case the health officers of the places named were at once notified by telegram to be on the lookout for immigrants from these vessels. The following letter was received from the health officer of Toledo:

C. O. PROBST, M. D., Secretary of the State Board of Health, Columbus, Ohio:

DEAR SIR:—I received your telegrams notifying me of the expected arrival here of persons from smallpox infected ships, one from Philadelphia, the other from Baltimore. I had six men out day and night from Friday evening until Tuesday evening searching for them. There were three, two, a man and wife from Baltimore. They are now in quarantine.

I desire to ask you whether there is not a neglect of duty on the part of seaboard quarantine authorities. It seems to me that there is no justice in their distributing



exposed persons all over the country. I have supposed that there were regulations forbidding such a course. At any rate it is an outrage on the authorities at their point of destination. My whole force were withdrawn from their daily duties in order to find these people. If this must be continued, can you not aid me by notifying me of the number, at what hour they take the train, and on what road. There is no more propriety in the sea-board authorities sending these people here than if we should ship them to some adjacent city, as Cleveland, Columbus, or Detroit. In the case of the young man from Philadelphia, he knew nothing of the existence of the disease on the ship, and in each case their luggage was not fumigated, but they were shipped forward at once.

Yours truly,

J. T. Woods, H. O.

The assistant health commissioner of Chicago, Dr. Reilly, informed me that among the thirty-one immigrants from the steamship Crefeld who came to that city, was one, a two-year-old child, that had never been vaccinated.

It is questionable whether immigrants exposed on vessels to smallpox, should be permitted to leave the port of debarkation until fourteen days from the last exposure to the disease; and it certainly is an outrage that they should be sent at once to their destinations without vaccination or disinfection of baggage.

It is to be hoped that some action will be taken by the Conference of State Boards of Health which will give us greater protection against the introduction of small-pox by immigrants.

Respectfully submitted,

C. O. Probst, Secretary.

On motion of Prof. Nelson the secretary was instructed to inform all persons wishing to appear before the Board that they would be required to present their matters in writing, diagrams to be furnished when necessary.

The secretary read the following telegram:

HAMILTON, OHIO, April 22, 1896.

C. O. PROBST, Grand Hotel, Cincinnati, Ohio:

Missed train. Will you bring up Hami'ton, Ohio, matter to issue bonds for street cleaning.

M. O. Burns, City Clerk.

Prof. Nelson moved that the secretary be instructed to say that the Board refuses to take any further action in the matter. The motion was carried.

On motion of Dr. Miller, the secretary was instructed to investigate the prevalence of some fatal disease reported at Centerburg.



The secretary presented a communication from Mr. Rudolph Hering relating to the proposed flushing tunnel for Cleveland.

Adjourned to 9 a. m. of the following day.

## SECOND SESSION.

9 A. M., April 23, 1896.

All present.

Mr. Frank A. Kaler, Superintendent, and Mr. George L. Wells, engineer of water works of Bucyrus, appeared before the Board to request approval of proposed changes in water supply. They were requested to place the proposition in writing.

Dr Stanton presented a report on water supply for Loveland.

On motion of Dr. Miller the report was adopted.

The secretary reported upon water supply proposed for Cambridge. On motion the report was approved.

A report by Mr. Hartzell upon sewerage for Salem, the report having been previously approved by mail vote, was presented, and upon motion, was adopted.

Plans for sewage disposal at Alliance, presented by Mr. L. E. Chapin, consulting engineer, and which had been previously approved by mail vote, were, on motion, approved.

Plans for Sewer District No. 13, in the city of Toledo, presented by Mr. W. G. Clark, city engineer, and which had been previously approved by a mail vote, were, on motion, approved.

A report by the secretary upon sewerage for Fostoria, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by the secretary upon the sewerage for the court house and jail at Delaware, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted

A report by Dr. Stanton upon the sewerage for Wyoming, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by Dr. Stanton upon the proposed water supply for Osborn, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by Dr. Kahle upon the proposed water supply for Montpelier, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by Prof. Nelson upon sewerage for Marysville, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by Dr. Stanton upon the proposed additional water supply for Xenia, having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by the secretary upon the proposed water supply for Delphos, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by Mr. Hartzell upon the proposed water supply for Mineral Point, the report having been previously approved by mail vote, was presented, and, upon motion, was approved.

A report by Dr. Kahle upon the proposed water supply for St. Marys, the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by the secretary upon the proposed water supply for Mt. Sterling, the report having been previously approved by a mail vote, was presented, and, upon motion, was adopted.

A report upon Sewer District No. 25 for Toledo, by the city engineer the report having been previously approved by mail vote, was presented, and, upon motion, was adopted.

A report by Dr. Stanton upon the proposed sewerage for Sidney was presented, and, upon motion, was adopted.

A report by Prof. Nelson upon the proposed water supply for Greenwich, the report having been previously approved by a mail vote, was presented, and, upon motion, was adopted.

A report by Dr. Stanton upon the proposed additional water supply for Xenia, the report having been previously approved by a mail vote, was presented, and, upon motion, was adopted.

A report by Dr. Stanton upon the proposed water supply for Lynchburg, the report having been previously approved by a mail vote, was presented, and, upon motion, was adopted.

The secretary was instructed to furnish at the June meeting, information as to the cost of converting the quarterly bulletin into a monthly bulletin.

On motion of Dr. Miller the secretary was authorized to contract with the lowest bidder for enlarging the library cases.

Dr. Hoover was constituted a committee to purchase a new carpet for the office.

The secretary was authorized to put in the office a long distance telephone, and to exchange an old typewriter for a new one.

Mr. John W. Hill, C. E., president of the engineer commission, by invitation, addressed the Board on the subject of proposed changes in the water supply of Cincinnati.

On motion of Dr. Hoover a vote of thanks was tendered Mr. Hill for his address.

Adjourned to 1:30 of the same day.

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#### THIRD SESSION.

Plans were presented for increasing and purifying the water supply of Bucyrus.

On motion of Dr. Hoover the secretary was appointed to make an investigation of the degree of purification of water that can be effected by the Hyatt filters now in use at Bucyrus, bacteriological tests to be made by the company by a bacteriologist satisfactory to the Board, approval of the supply to depend on the results of such tests.

There being no further business, the Board adjourned.

C. O. Probst, Secretary.

#### JUNE MEETING.

A regular meeting of the State Board of Health was held in the parlor of the Hollenden Hotel, Cleveland, June 17 and 18, 1896. All the members were present. Dr. Wise presided.

Mr. M. H. Levagood, mayor, and Mr. F. S. Reefy, president of the board of health, of Elyria, and Mr. L. E. Chapin, of Canton, consulting engineer, were present, and, on motion of Dr. Hoover, were heard on the subject of a new water supply for Elyria.

Mr. Hartzell moved to approve the plans as presented. Dr. Hoover moved to lay the question on the table until an executive session could be held. This motion prevailed.

Mr. J. B. Strawn, consulting engineer for Willoughby, was present and presented plans for the sewerage of that village.

The minutes of the last meeting were read and approved.

A communication was read from Mr. Wells, engineer for the water works company, having charge of the water works at Bucyrus, showing that no action has been taken in regard to bacteriological tests to show the efficiency of mechanical filters in use at that place.

The secretary presented his quarterly report, which was approved.

QUARTERLY REPORT OF THE SECRETARY.

Mr. President:

Your secretary begs leave respectfully to report as follows:

#### INSPECTION OF DOAN BROOK.

May 14th, at the request of Dr. Miller, I visited Cleveland, and with him inspected Doan Brook with reference to its use for carrying off the storm overflow of sewers which it is proposed to build. Prof. Nelson,

who was in Cleveland, Dr. Miller and Mr. McBride, the president of the Cleveland park commission, inspected the brook a few days prior to this time.

It was agreed to recommend that the Board hold its next meeting in Cleveland to consider the matter. All the members favoring this, the meeting was so-called.

#### ADDITIONAL WATER SUPPLY FOR MT. VERNON.

On May 15, I met Dr. Wise at Mt. Vernon, where it is proposed to acquire land for increasing the public water supply. Mt. Vernon now has a most excellent water supply derived from artesian wells, and it was feared that if this was not protected by buying a considerable amount of land adjacent to the wells, others might come in and cut them off from their supply. The question of issuing bonds to buy this land was to be submitted to a vote of the people on the day after we were there, and the water works trustees wanted the state board of health to endorse the plan. After an inspection of the ground, we agreed to approve of the wisdom of the plan, and Dr. Wise left a writing to that effect.

#### WATER SUPPLY FOR BLUFFTON.

Bluffton, a small village in Allen county, made application for approval of a public water supply, and Dr. Kahle and I went there May 21. No plans had been prepared, but council had purchased land containing a body of water which had filled an abandoned stone quarry. This artificial lake is several acres in extent, and in places is sixteen to seventeen feet deep. It is supplied by large springs, and is the same water reached in sinking wells in the village for private use. The lake is within corporate limits, but there are no houses or sources of pollution near it. It is well stocked with fish; the shores are overgrown with willows and water grass, and it contains considerable debris, such as boards, logs, etc. One end of this lake is not included in the purchase of the village. This part is quite shallow and would not afford a great quantity of water.

We were of the opinion that it would be unfair to pronounce on the supply as we found it, and did not collect samples for examination. We advised the authorities to build a tight wall shutting off that end of the lake they did not own; to cut a ditch around one side of it so as to shut off all surface drainage, and to pump the water out of the basin and thoroughly clean it, removing all vegetation. We promised, when this is done, to make another investigation, examine the water, and present their plans to the Board for approval.

June 3, at the request of Mr. J. B. Strawn, consulting engineer, I went to Willoughby and looked over lines of proposed sewerage for that village.

On the following day I visited Elyria, by request of the water works trustees, and inspected the source proposed for a new water supply for that city. As plans were not completed in either case, and as the Board was to meet in a short time in the neighborhood, I requested that the plans be presented at this meeting by delegates from both places, which was agreed to.

#### NATIONAL CONFERENCE OF STATE BOARD OF HEALTH ...

June 10 to 13, I attended the meeting of the national conference of state boards of health in Chicago. The attendance was less than usual, about thirty delegates being present, but in other respects the meeting was a very successful one. I was re-elected secretary and shall be able to give you a full report of the meeting in a short time.

An important change was provided for in the constitution, which will allow port quarantine authorities, national, state and municipal, and also representatives of the state boards of health of Mexico, to become members. The name will be changed to the "American Conference of State Boards of Health."

A resolution was adopted calling the attention of the port quarantine authorities to recent negligence with respect to the vaccination, and disinfection of baggage of immigrants arriving on small-pox infected ships.

The next meeting will be held in Nashville, in August of 1897.

As special reports, to be submitted at the pleasure of the Board, I have to report upon influenza at Centerburg, disinfection of the city workhouse at Dayton, where small-pox recently prevailed, inspection of the Franklin county children's home, water supply of Canal Dover, diphtheria at Pemberville, investigation of a nuisance at Defiance, the water supply of Millersburg, and scarlet fever at Fredericktown.

Respectfully submitted,

C. O. Probst, Secretary.

A recess was taken until 9 A. M. of the following day.

#### SECOND SESSION.

Thursday, 9:30 A. M. All members present.

The application of Elyria to approve proposed water supply for that city was, on motion of Prof. Nelson, taken from the table. Prof. Nelson moved that the proposed supply be approved, and that a preference for the western intake be expressed; also that the letter of approval convey the opinion of the Board that filtration of the supply should be provided for as soon as practicable. The motion was adopted.



The application to approve a sewerage system proposed for the village of Willoughby was taken up for consideration.

On motion of Dr. Hoover it was voted to disapprove the plans unless arrangements could be made for satisfactorily purifying the sewage before turning it into Chagrin river.

A communication was presented from Mr. Gray, of Pittsburg, Pa., stating that for the protection of that city it had been decided to make bacteriological examinations and furnish anti-toxine for all cases of diphtheria occurring within fifty miles of the city. This would include a part of Ohio.

The secretary was instructed to go to Dayton and examine the construction of storm water sewers in that city. The secretary presented a report on the cost of publishing a monthly sanitary bulletin. On motion of Prof. Nelson consideration of the report was deferred until the October meeting.

The secretary reported upon the water supply of Millersburg. On motion of Dr. Stanton it was voted to approve the supply.

The secretary presented a report proposing the tuberculin test for tuberculosis in milch cows, the test to be made by local boards of health with tuberculin furnished by the state board of health. On motion of Dr. Miller it was voted to appoint a committee of three to investigate and report upon the subject at the next regular meeting. The president appointed as members of this committee the secretary, Prof. Nelson and Dr. Miller.

Messrs. Holden, McBride and Pratt, representing the board of park commissioners, and Messrs. Rawson and Force, city engineer and assistant engineer, appeared before the board with reference to permitting a storm overflow from the proposed Doan street sewer into Doan brook.

Prof. Nelson was appointed a committee to advise with the authorities of Delaware in regard to securing a proper system of sewerage for that city.

Dr. Stanton reported that the board of health of Ripley was not doing its duty; that no meetings had been held, physicians were not reporting contagions diseases, and burials were without permission of the board of health. On motion of Dr. Hoover, Dr. Stanton was requested to put his report in writing, and the secretary was instructed to send a copy to the council and board of health of Ripley.

The secretary presented a report and plans of a sewerage system proposed for Martin's Ferry. On motion of Dr. Stanton the report and plans were approved.

The secretary called attention to the new plumbing act, requiring boards of health in cities and villages having water works or sewerage to appoint a board of examiners, and to adopt rules and regulations governing plumbing, and suggested that the board should prepare such plumbing regulations and recommend them to local boards for adoption.



On motion of Dr. Hoover it was voted to appoint a committee of three to draft plumbing regulations, and send them to the local health authorities mentioned in the plumbing act. The chair appointed on this committee Messrs. Hoover, Stauton and Probst.

On motion of Dr. Stanton it was voted to proceed to the election of officers. Dr. Stanton presented the name of Dr. Miller for president. On motion of Dr. Hoover the secretary was instructed to cast a ballot for Dr. Miller as president. The secretary reported that he had cast a ballot as directed and Dr. Miller was declared elected as president. Dr. Stanton presented the name of Dr. Hoover for vice-president and moved that the secretary cast the ballot of the board for Dr. Hoover as vice-president. The motion prevailed. The secretary reported that he had cast the ballot as directed and Dr. Hoover was declared elected as vice-president.

Dr. Kahle moved that the president appoint three delegates, including the secretary, to the next meeting of the American Public Health Association. Dr. Stanton moved to amend by substituting the words "president-elect and secretary" for "three delegates including the secretary." The motion, as amended, prevailed.

The secretary presented a report of an investigation of a nuisance at Defiance arising from the stock yards of the Wabash Railroad Company. On motion of Prof. Nelson the secretary was instructed to send a copy of the report to the board of health of Defiance and urge immediate action in abating the nuisance.

Adjourned to visit the Park and Doan Brook.

#### THIRD SESSION.

The Board reconvened at 4:45 P. M.

Dr. Hoover offered the following resolution, which was adopted:

WHEREAS, The explosion of gasoline is of such frequent occurrence, and nearly always results in the loss of life or disfigurement of persons, and

WHEREAS, Such accidents are generally due to the careless methods of storage and handling of this substance, Therefore be it

Resolved, That this board earnestly urges upon local authorities the adoption and enforcement of such regulations of its use as will prevent such dire results.

Prof. Nelson moved a reconsideration of the motion to approve of proposed changes in the sewerage system of the city of Cleveland, as presented by D. E. Wright, director of public works, under date of April 22, 1896. The motion to reconsider was adopted.

Dr. Stanton moved that the changes in, and additions to the sewerage of the city of Cleveland, as presented by D. E. Wright, director of

public works, under date of April 22, 1896, be approved with the exception of the proposed storm overflows from Doan street sewer into Doan brook at Wade Park. The motion was adopted.

Dr. Kahle presented the following resolution and moved its adoption:

Resolved: That after further investigation, it is the opinion of this board that the proposed storm overflows from Doan street sewer into Doan brook at Wade Park should not be permitted if avoidable. Be it further resolved that storm water, unless unavoidable, should not be carried in sewers with sewage; and the authorities of Cleveland are respectfully recommended to use every endeavor to make use of the separate system of sewerage for the Doan brook district. The resolution was adopted.

There being no further business the board adjourned.

C. O. PROBST, Secretary.

#### OCTOBER MEETING.

A regular meeting of the State Board of Health was held at the Lima House in Lima, October 22, 1896.

Present, Drs. Wise, Stanton, Kahle and Prof. Nelson. Dr. Wise presided.

On motion of Prof. Nelson the reading of the minutes of the last meeting was dispensed with.

The Secretary presented his quarterly report, which was approved and filed.

A report by Drs. Hoover and Probst on the water supply of Marion was presented by the secretary. On motion of Prof. Nelson the report was approved.

Mr. Clark, city engineer, and Mr. Rakestraw, member of council of Toledo, appeared before the Board to request its approval of additional sewerage for the city of Toledo. They were asked to place their request in writing.

The secretary presented a report on the sanitary condition of Lakeside. On motion of Dr. Stanton the report was approved.

Dr. Stanton offered the following resolution, which, on motion of Dr. Kahle, was adopted:

Resolved: That this Board disapproves of the sanitary conditions existing at Lakeside, Ohio, as shown by the Secretary's report, and especially of the water supply and sewerage, and that the management be urged to make the necessary changes before the next season's opening.

The Secretary presented a report by Prof. Nelson on the water sup-

ply of the Beebe House at Put-in-Bay. On motion of Df. Stanton the report was approved, and the Secretary was instructed to confer with the proprietor of the Beebe House in regard to improving the water supply.

The city engineer of Toledo presented a request for approval of plans for sewer districts Nos. 26 and 27 of the city of Toledo.

On motion of Prof. Nelson it was voted to take up the request in executive session.

Mr. Frank Collins, of Toledo, appeared before the Board on behalf of the National Supply Co., and desired to know whether the word "latrines," as used in section 31 of rules and regulations for the construction of plumbing, as recommended by the Ohio State Board of Health, July, 1896, applied to range water closets. The construction and operation of the range closet was explained by Mr. Collins.

On motion of Dr. Kahle the secretary was authorized to inform any person making inquiry that the range water closets are not considered as coming under the provisions of section 31 of the rules and regulations recommended by the State Board of Health for the construction of plumbing.

Plans for public water supplies for Rockford, Oxford, and Tippecanoe City were approved; also plans for changes in the public water supplies of Ashtabula, Delaware and Medina; also a plan for a sewerage system for Willoughby, and a plan for sewage disposal at the Ohio State Reformatory.

The secretary presented a report on typhoid fever at Gibsonburg, which was approved.

A report of an investigation of the public water supply of Lancaster was presented by the secretary. The report was approved and the secretary was instructed to call the attention of the trustees of the Lancaster waterworks to the danger of pollution of the water supply by sewage.

On motion of the secretary the rules of the Board were amended so as to include cases of membraneous croup among the contagious diseases to be reported by physicians and subjected to quarantine measures.

On motion of Prof. Nelson plans for sewer districts, numbers 26 and 27 of the city of Toledo were approved, but only as a temporary expedient as regards their outlets.

Prof. Nelson submitted a report on plans proposed for the drainage of the Children's Home at Delaware. On motion of Dr. Stanton the report was approved.

On motion of Dr. Kahle the secretary was authorized to have printed monthly six thousand copies of the Ohio Sanitary Bulletin, without mortality tables.

The secretary submitted the annual report for 1896. On motion of Prof. Nelson the report was approved.



Dr. Stanton moved that the present members of the finance committee be continued in office until a new committee is appointed by the president. The motion was carried.

On motion of Dr. Kahle the president and secretary were appointed a committee to arrange a program for the joint meeting of boards of health in January.

There being no further business the Board adjourned.

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C. O. Probst, Secretary.

# SPECIAL REPORTS

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- A. Contagious Diseases.
- B. Public Water Supplies.
- C. Sewerage Systems.
- D. Sewage Disposal Works,
- E. Nuisances.
- F. Inspection of Public Institutions.

## Contagious Diseases.

SMALL-POX IN SOUTHEASTERN OHIO, AT DAYTON, LIMA AND LOCKLAND.

To the State Board of Health:

GENTLEMEN:

At the meeting of the Board in October, 1895, report was made of outbreaks of small-pox in Bridegport and Martin's Ferry. At that time there had been sixteen cases in Bridgport, two in the adjoining township of Pease, and six in Martin's Ferry. The disease seemed to be checked at Martin's Ferry and Bridgeport when, owing to mistakes in diagnosis, a fresh crop of cases developed in both places. In Bridgeport a man named Powell died after three days' illness from what was pronounced post mortem purpura hemorrhaghica. It was in fact small-pox, and a large number of cases resulted from exposure to this case. A little later a man named McConaughy, after two weeks sickness, died of what was called rheumatism with heart complications. The diagnosis is still in dispute but a number of cases of small-pox seem to be only traceable to exposure to this case.

In Martin's Ferry a case of small-pox was called typhoid fever until after a large number of people were exposed. There was great trouble in managing the disease in this place. The health officer was an old man unable physically to do the work imposed upon him, and besides not a physician. When a case of small-pox was reported, the house was flagged and a guard placed over it, but there was no one to look properly after vaccination of the inmates of the house or hunt up exposed persons. The board of health had taken the position that they would not furnish medical attendance nor supplies to any who could pay for them or get credit, and if they could do neither, held that the township trustees must take care of them as paupers. Finally the board employed a physician for \$25.00 a month, the lowest bidder, to treat cases that had no other physician. The board was unable to furnish me a list of their cases. I spent two days in going from house to house, hunting up the cases, and found forty-seven in twenty-three houses. I also found thirty-three persons in small-pox houses who had never been vaccinated, or who had not been for years, and gave the board a list of a number of persons who had been exposed, and who were at large and unvaccinated.

As the disease was being badly managed, and was rapidly spreading in Martin's Ferry, it was deemed wise to have the State Board assume control, or at least to adopt certain regulations and require the local boards to enforce them. Accordingly I drew up the following rules on December 15th and mailed a copy to each member, requesting a vote by telegram:

#### REGULATIONS OF THE OHIO STATE BOARD OF HEALTH FOR THE SUPPRESSION OF SMALL-POX IN BRIDGEPORT, MARTIN'S FERRY AND VICINITY.

- 1. The board of health of Martin's Ferry, Bridgeport and vicinity where smallpox is prevailing, shall at once enforce measures to secure the vaccination of the inhabitants of their respective communities.
- 2. All houses containing small-pox shall be securely guarded day and night, to prevent entrance to or exit from such houses.
- 3. Physicians shall be required to report at once to the health officer all cases of disease to which they are called which in any manner simulate small-pox.
- 4. It shall be the duty of the board of health to cause such cases to be examined at once by one or more reputable physicians; and "suspects" shall be strictly quarantined until it is positively known that they are not suffering from small-pox-
- 5. No person shall be employed as guard or nurse for small-pox patients unless he or she has been recently vaccinated.
- All employees of railroads, steamboats or other transportation companies
  passing through or touching at Bridgeport or Martin's Ferry shall present evidence
  of recent vaccination.
- 7. No railroad or other transportation company shall receive for shipment household goods of any character from Bridgeport or Martin's Ferry.
- 8. The secretary of the Ohio State Board of Health is hereby authorized to withhold, suspend or modify these regulations, or to make and embrace such additional orders or regulations as the exigencies of the situation may demand.
- 9. Any person violating these regulations shall be punished as provided in sections 2 and 5 of an act passed March 14, 1893.

Attest: C. O. PROBST, Secretary.

Adopted: December 16, 1895.

On the 16th I received the affirmative votes of a majority of the members, and on that date served a copy of the rules on the boards of health of Bridgeport and Pease township, and on the following day on the board of health of Martin's Ferry.

With some difficulty a new health officer was secured for Martin's Ferry on December 18th, Dr. Darrah being appointed. Mr. Lindemuth, a former health officer, was made his assistant. The city was divided into eight districts and a physician employed in each district to make a house to house visit for vaccination. So well was this work done that on January 7th the health officer reported that there were less than one hundred people in the city who had not been vaccinated within the previous year. The rules of the State Board were strictly enforced, as well as additional instructions given for disinfection, releasing of patients, etc.



But twelve cases of small-pox occurred in Martin's Ferry after these rules were put in force, and only three of these were in houses in which the disease was not already present. In all, there were seventy-four cases in Martin's Ferry, and seven deaths. The last case was reported January 20th.

In Bridgeport, vaccination was also quite generally enforced, but few of the people remaining unvaccinated, the health officer reported, though he was unable to give the exact number. Since Powell's death, which occurred November 18th, and whichstarted the second outbreak, there were thirty-four cases in Bridgeport, giving a total for the outbreak of fifty-nine cases and eight deaths.

From Bridgeport, Martin's Ferry or Wheeling, W. Va., the disease was carried in Ohio to East Liverpool, Zanesville, Lisbon, Pease, Pultney and Colerain townships in Belmont county, and three townships in Monroe county. Pease, Pultney and Colerain townships adjoin Bridgeport. There were ten case in Pease township, two in Pultney and three in Colerain. No deaths.

The case at East Liverpool was a base ball player, taken sick December 5th, and not quarantined until the 11th. On the 7th he was shaved at a barber ahop and in the evening attended a public ball. Although a large number of persons must have been exposed, the only other case to develop was the patient's brother who was quarantined with him. I went to East Liverpool December 19th by request of the board of health, saw the patient and confirmed the diagnosis. I urged general vaccination. The board ordered all the school children vaccinated and arranged for vaccination of the employes of the potteries and other large works The origin of the patient's disease is unknown.

The case at Lisbon was reported December 18th. The health officer reports that the patient was in Martin's Ferry about the 10th and was sick the 15th, too short a time for his exposure to have been in Martin's Ferry on the 10th. The man was living in a shanty with three other Germans. Ten other Germans living in a shanty near by were exposed. The patient was promptly quarantined and exposed persons vaccinated. An additional case was reported there January 22nd.

George Landenberg, living near Miltonsburg, Monroe county, was taken sick with small-pox December 13th. He had been in Wheeling, W. Va., about two weeks before, and is supposed to have contracted the disease there. His case was diagnosed la grippe, and before the true character of his disease was known about one hundred people were exposed to small-pox. All the inmates of his house, six in number, contracted the disease, and two of them died. A son, George, living in another house in the neighborhood, and a child of Shrader, also a neighbor, contracted the disease. Other cases were Fritz Stalder, in Miltonsburg, and Adam Myers and son, three miles south of Woodsfield.

Great excitement prevailed in Southeastern Ohio on account of the

disease. The most absurd restrictions were placed on traffic and travel. The running of trains was stopped, in some instances, and all shipments were stopped not only from places where there was small-pox, but from many places entirely free from the disease. Uhrichsville was one of the first places to quarantine, and included Bellaire in the list of towns quarantined against. Quaker City, later, quarantined against Uhrichsville, although there is no direct connection between the places, and also included Canton in the list. The board of health of Beallsville, Monroe county, acted entirely without reason. A man came from Pittsburg to Bellaire, and, without stopping there, except to change cars, (there was no small-pox in Bellaire) went on to Beallsville and put up at a hotel. board of health promptly quarantined the hotel. People suffered from the lack of farm produce and fresh meat. At Bridgeport a man went out to the quarantine line to get a calf. The owner of the calf had a long rope around its neck and wanted simply to throw the rope over the line to allow the butcher to take the calf away. He was not allowed to do so. Many other ludicrous incidents of similar character occurred. Letters and telegrams poured into the office urging the Board to interfere. I laid the matter before the President, and it was decided to invite the various boards of health to send delegates to meet a committee of the Board in Bellaire on January 8th. The President appointed Dr. Hoover and myself a committee to represent the Board. The meeting was held in the city hall, Dr. Hoover presiding, and myself acting as secretary. There were twenty-one boards represented. I was able to make a report of the exact situation in Bridgeport, Martin's Ferry and vicinity, having made an investigation the day before. The various delegates reported upon the quarantine measures being enforced in their respective places. Your committee acted merely in an advisory capacity, but was able to effect many needed changes in quarantine and a much better understanding was arrived at of the small-pox situation, and of the steps necessary to guard against the disease.

It was reported to me at the meeting that at Colerain, a small village about eight miles from Bridgeport, they had been having an epidemic of what was called chicken-pox, but that many adults were affected, including the wife of one of the physicians. It was reported that a brother of this woman contracted small-pox from her. Quarantine had been so strict against Bridgeport and Martin's Ferry that it was impossible to obtain authentic information. I was urged by the authorities of Bridgeport and Martin's Ferry to make an investigation. Accordingly, the health officer of Bridgeport, Dr. Heinlein, and myself drove to Colerain on the day after the Bellaire meeting. We found that an epidemic had prevailed there a few weeks before, but from a history of the cases and the appearance of some of the patients we were able to examine, concluded that the disease was chicken-pox. The fact that a considerable number of adults were affected is certainly unusual.



On the next day, at the request of the authorities, I visited Miltonsburg, Monroe county, driving there from Beallsville. The facts in regard to small-pox there have already been given. I met the board of health of Miltonsburg, of two adjacent townships, and of Beallsville, and gave advice as to measures for the prevention of small-pox. I also succeeded in making a better adjustment of quarantine measures.

March 7th, the health officer of Zanesville reported a case of small-pox in that city. The patient, Will Tompkins, was admitted to the city hospital, March 3d, under a diagnosis of typhoid fever.

Tompkins is reported to have visited an uncle in Bridgeport about two weeks prior to this illness, the uncle having had small-pox some weeks before. With Tompkins was a lad named Kinkade; and it is reported that both of the boys slept on a bed lounge which had been used by Tompkins' uncle when he had small-pox. The hospital was quarantined, the patient deing considered to be in a condition making it dangerous to remove him. Kinkade was taken with a chill the day before Tompkins was removed to the hospital, and he was quarantined in his home, a younger brother and a grandmother being the only other occupants of the house. March 21st the brother was reported as having small-pox, and March 31st the grandmother was so reported. She died on the night the case was reported to me.

April 2d, another case was reported in a different part of the city. The disease could not be traced to the other cases, and the origin is no-known. No other cases have been reported.

To sum up the results of the small-pox outbreak at Wheeling, W. Vat (where the disease originated), there were fifty-nine cases in Bridge. port, seventy-four in Martin's Ferry, fifteen in townships adjoining these places, thirteen in Miltonsburg and vicinity, two in Lisbon, two in East Liverpool, and five in Zanesville; a total of 168 cases, of which seventeen were fatal.

#### SMALL-POX AT DAYTON.

On February 12th, the health officer of Dayton reported by letter that he had that day quarantined the city workhouse on account of a suspected case of small-pox. The patient was a prisoner who had been confined in the workhouse for forty-eight days prior to that time. On the 21st of February he reported that the case was undoubtedly small-pox, and that there were no new cases. March 18th, he reported eighteen new cases in the workhouse. March 20th, in answer to a letter of inquiry, he reported two cases outside, and thirty-one cases, with four deaths, within the workhouse. The board of health ordered free vaccination on that date. March 24th, and again in reply to my inquiry, the health officer reported two additional cases outside the workhouse. He was unable to account for any of these four cases. The origin of the

first case in the workhouse is also unknown. Cases of smallpox continued to develop in Dayton outside the workhouse. This created some public alarm, and several meetings of a citizens' committee were held to consider measures to control the disease. April 8th a representative of the committee called on me and requested me to go to Dayton and make an investigation of the small-pox situation. I went to Dayton on the 10th, met the citizens' committee, which is composed of representative men, and also met the health officer and board of health. Much dissatisfaction was expressed in the citizens' committee with the health officer, who, it was held, was not enforcing proper measures to suppress smallpox. The board of health had just erected a quarantine hospital, but, it was claimed, after weeks of unnecessary delay. One of the most serious charges brought against the health officer was that he had publicly stated that small-pox is not contagious until the second day of the eruption, and that actual contact was required to contract the disease.

I spent considerable time in trying to verify these charges, and found many of them were merely unproven rumors. The health officer admitted having made some mistakes, but emphatically denied that he had made any such statements regarding the time when smallpox becomes contagious.

The citizens' committee desiring a statement for publication in the daily papers, was given the following:

#### MR. S. M. DAVIES, Chairman Citizens' Committee, Dayton, Ohio:

DEAR SIR: At your request that I should prepare a brief statement of the smallpox situation in Dayton, and outline the steps that are considered necessary in preventing spread of the disease, I beg leave to submit the following:

Up to the present time—April 11th—there have been in Dayton forty-two cases of smallpox with four deaths. Thirty-two of the cases and all of the deaths occurred in the workhouse. The ten cases in the city proper have been distributed as follows: One at 15 Brady street, one at 317 S. Perry, two at 926 Home avenue, one at 25 Hussong lane, one at 1227 W. Fourth street, one at 247 Maple, one at 18 Joe street, one at 1700 E. Third street, and one at 1215 W. Fourth street. The first two cases have recovered; the others have been removed to the quarantine hospital, which is two miles from the city, except one at 18 Joe street and one at 1700 E. Third street. There are but two cases in the city and eleven cases in the quarantine hospital. These ten cases occurred, or rather they were quarantined between the dates of March 19th and April 10th.

There have been no smallpox patients in the workhouse for more than two weeks. At this time there are but six persons there, all females, who are being held on account of their possible exposure to smallpox. The superintendent and his family are also quarantined there.

The present situation is not at all alarming, but the danger cannot be said to be over. It is therefore important that there should be no relaxation in restrictive measures, and that the utmost vigilance should still be exercised.

As to the measures that should be taken for the prevention of smallpox, it is impossible to give here more than the broadest outlines. Most, if not all of these your health officer informs me he is now enforcing.

First of all there must be an immediate report of the case. Smallpox is possibly contagious from the first day of the initial fever, and it is highly important that the patient should be separated from others at the earliest possible time. It is impossible to positively diagnose smallpox before the eruption appears, but the symptons preceding the eruption may lead one to suspect smallpox, and such cases should be reported at once so the health officer can quarantine the patient until the disease is known to be not smallpox.

When the disease is declared to be smallpox the patient should be removed to the quarantine hospital; his dwelling should then be thoroughly disinfected, and the family and all others who have been exposed to the disease should be quarantined in their homes for not less than fourteen (14) days from the date of their last exposure. In the case of those living in the house with the patient the date of last exposure should be counted from the day after the house is disinfected. It is of great importance that all persons who have been exposed to smallpox should be found as soon after exposure as possible and be vaccinated. If this is successfully done within the first three or possibly four days after exposure, the person will probably escape the disease or have it in a light form.

When the patient, for good reasons, cannot be removed to the quarantine hospital (and it should be known that the chances for recovery are usually much better at the hospital than at home) he must be strictly quarantined at his home. To do this it is necessary to have two guards on duty at all times. Guards and also nurses should be vaccinated before going on duty, even if they have had smallpox, as the disease may occur a second time. It requires the utmost vigilance to make a house quarantine effective. Nothing should pass out of the house, not even money. When the patient has died or recovered the house and all its contents should be most thoroughly disinfected, and under the direct supervision of the health officer, or some one appointed by him. When this has been done, the patient, who should have had several baths in a disinfectant solution, may be given fresh clothing and permitted to go at large. The other inmates should be kept in quarantine and under observation for not less than fourteen (14) days from the day after disinfection of the house is completed.

In spite of the best quarantine measures possible the disease often escapes control; but the greatest danger of its spread comes from concealed, or mild, unrecognized cases. It is so often mistaken for chicken-pox that physicians, during an epidemic of smallpox, should be urged to report all cases of that disease so that they may be closely watched. On account of these dangers of exposure to smallpox general vaccination and re-vaccination should be urged. Your board of health is to be commended for having provided for free vaccination, but this work should not be stopped. It is estimated that 20,000 persons in Dayton have been recently vaccinated. This leaves 60,000, many of whom must be unprotected against smallpox. These should be looked after. It would be wise for manufacturers and others employing a large number of persons, to make vaccination a condition of employment. About 1,500 school children, it is estimated, have entered school since the vaccination of school children ordered by the state board of health two years ago. These should be vaccinated before being allowed to attend school.

It is important to remember that vaccination, in many cases, gives protection for but a few years. In England, before the days of general vaccination, smallpox was essentially a disease of childhood. Now, from neglect of revaccination, it is a disease of adult life.

The prevention of smallpox may be briefly summed up in providing for, first, early isolation of the patient, by which the poison of the disease may be confined; second, disinfection, by which this poison is destroyed, and third, vaccination, which gives protection against the disease, if exposure should occur.



By a proper and thorough enforcement of these measures—and all citizens should in every possible way assist the board of health and its health officer in their enforcement—your city should soon be free from the disease.

Very respectfully,

C. O. PROBST, Secretary.

April 16th the health officer of Dayton reported three new cases, all discovered on the 14th. One of the cases was concealed, and was in the seventh day of eruption when found.

No other cases occurred in the workhouse, the smallpox patients all being taken from there to the new Infectious Disease hospital the latter part of March. Cases appeared in the city until in May. There were in all 32 cases in the workhouse, of which number 4 died, and 29 cases in the city proper, with 4 deaths.

On April 28th, I was summoned to Dayton by a telegram from the health officer. On arriving I learned that he wanted advice as to what should be done with the stock and materials belonging to the brush works in the city workhouse.

This company employ prison labor, and their shops and contents, excepting one room, had been exposed to smallpox infection. The made stock and unmanufactured materials was valued at about \$5,000. I inspected the shops in company with the health officer and general manager, and gave the former the following instructions in writing:

DAYTON, OHIO, April 28, 1896.

DR. A. H. IDDINGS, H. O., Dayton, Ohio:

DEAR SIR: At your request I this day inspected the brush shop in the city workhouse, where smallpox recently prevailed, and have the following suggestions to offer as to the treatment of the contents of said shop:

Materials and articles of all kinds, including completed and unfinished work, stock, patterns, tools, etc., which may be wetted without injury, may be disinfected by being kept in boiling water for one hour, or in cold water containing corrosive sublimate in the proportion of 1 to 500.

Stock in bags and boxes which have not been opened may be saved by removing the contents and destroying the containers. Work benches, furniture, machinery, etc., should be washed with the corrosive sublimate solution, and then be whitewashed or painted.

The remainder of the contents of the brush shop, excepting the contents of the adjoining store-room, should be destroyed by burning. The contents of the store-room which was kept locked and was entered only by the superintendent of the brush shop, should be disinfected by sulphur fumigation, using not less than four pounds of sulphur to each 1,000 cubic feet of air space, after making the store-room as nearly air tight as possible.

The floor of the brush shop should be very thoroughly drenched with the corrosive sublimate solution, and the ceiling and side walls be given at least two coats of lime wash, freshly prepared.

Disinfection should be done under the direct supervision of a competent, trustworthy man, appointed by yourself. In disinfecting by boiling water or by corrosive sublimate solution, care should be taken that all articles are completely sub-

merged during the time of disinfection. Articles, after disinfection, should not be restored to the brush shop until after the shop itself has been thoroughly disinfected.

#### Respectfully,

C. O. PROBST, Secretary.

#### SMALLPOX AT LIMA.

The day before smallpox was reported at the Dayton workhouse a prisoner by the name of Simmons was discharged from there who went to Lima. He was taken sick March 1st. The health officer saw him that day and pronounced the disease smallpox, quarantining the family.

There were four other persons in the house with the patient and all but two of these contracted smallpox. On April 4th another case developed across the street from the house where the disease first appeared. There were seven persons in this same family and of these five were attacked with smallpox. None of the cases resulted fatally.

#### SMALLPOX AT LOCKLAND.

A case of smallpox developed at Lockland about the 20th of March in the person of a colored barber of that place, named Robert Cook. The case was discovered early and the patient was taken to the infectious disease hospital of Cincinnati. Strict quarantine was maintained over the family of the patient and no other cases developed. The origin of this case is not known. The patient was in Dayton for a few hours on the 1st of March, and visited one or two houses in the neighborhood of the workhouse. His exposure there would mean an incubation period for the disease of twenty days, which would be very unusual.

Respectfully,

C. O. PROBST, Secretary.

The health officer of Bridgeport, Dr. J. A. Heinlein, who treated nearlyall of the cases that occurred there, has furnished the following interesting report on smallpox at Bridgeport:

#### REPORT ON SMALLPOX AT BRIDGEPORT.

BY J. A. HEINLEIN, M. D., HEALTH OFFICER.

The first case of smallpox occurred in Aetnaville, (third ward of Bridgeport) the latter part of June 1895. It was brought over from Wheeling, where the disease had been prevailing for some time.

Just about this time the family (consisting of wife and four children) of this man who had smallpox, moved here. Within two or three weeks, the mother and three children took sick; one of the children, who had always been an invalid, died. The convalescing father mingled

with the people, made arrangements with a Bridgeport undertaker, and had a public funeral. All this took place before we discovered that there was smallpox in the family. The cause of the child's death was pronounced by the attending physician "cerebro-spinal-meningitis." (We have included this as one of the deaths from smallpox).

The fourth child was with the other sick ones at the time, but did not take the disease, because she had been successfully vaccinated two years before. The others were vaccinated at the same time but not successfully. The mother and father had been vaccinated when quite young. The former had varioloid and the latter discrete smallpox.

This family exposed the public to smallpox from the latter part of June until the 11th of July, before the disease was discovered and quarantined. It would naturally be supposed, from the extended time of exposure, with a public funeral, that a great many cases would have resulted, but I can trace only four, namely: Two in Aetnaville, one in Martin's Ferry, and another in a young man, who was so badly frightened by the disease that he fled to the West, where he had relatives, but in a short time he took the disease and died.

One of the cases in Aetnaville, traceable to this family, was David Williams, a young married man who resided about a square from them on the next street. He visited the family while the father was sick, and smoked the man's pipe. It was on the eleventh of July that we discovered that Williams had the disease. In fact this was the first family we visited, and he had discrete smallpox in the vesicular stage. The eruption appeared on him about the 7th of July. His wife, and another family living in the same house and on the same floor, consisting of husband, wife and two children, were exposed to the disease continuously up to the 11th of July. On that day all were vaccinated, and the vaccination proving successful none of them took smallpox. The mother of this neighboring family was pregnant in the sixth or seventh month, and on this account she strenuously objected to being vaccinated, but after persistent persuasion and on being told of the danger her life was in, she finally consented. The second case in Aetnaville was in a child about two or three years of age who lived on the other side of the double house where family number one had it. This little girl was hidden from us by her parents. She recovered, but her three weeks old sister took the disease in a most malignant form and died. All this happened after the quarantine was taken off the house. We discovered the corpse on the day of the funeral, just in time to prevent another public funeral. From this family it spread to others making a total of fifteen cases in Aetnaville. Thirteen of these recovered. On October 4th, quarantine restrictions were removed from all the cases in town; but on the night of October 1st, Sallie Norman, who was living in Wheeling, was brought over in a buggy and left at the Wheeling Creek Coal Works, which is two miles west of Bridgeport. She was in the beginning of the papular stage on the next day, and was one of the worst confluent cases I have ever seen.

Another case occurred in Aetnavile on October 19th; one in Bridgeport on Pike street on October 21st, and at the Coal Works on November 1st; the latter was varioloid and occurred in another family.

These cases recovered, and November 11th quarantine was raised on all. At this time, we were congratulating ourselves on the disease being stamped out, but between the 1st and 15th of December about twenty-eight cases developed. Others took it from these, and a few cases occurred later the source of which we were unable to trace. The last case appeared on the 23rd of January, 1896, and by the 27th of January, quarantine was lifted from all except three families. These were discharged and quarantine finally raised on the 17th of February. From that date up to the present time we have not had any more smallpox.

When the smallpox appeared the last time it took but a short time to discover its source. There were two patients, both young male adults; one died on the 21st of November after an illness of just five and a half days. The other died on the 28th of November after an illness of about ten days. The attending physician called me in just a few hours before death occurred in each case; in fact both were dying when I saw them.

These were irregular and peculiar cases. One who had never seen 'purpura variolosa," would think it a queer kind of smallpox. my opinion now, that these cases were smallpox, and that we were mistaken in our diagnosis. Why I think so is because I can trace nine cases directly to the one and ten to the other. The young man who died on the 21st of November, was sick about five and a half days. the opera house on Friday night, November 15th, and while there felt slightly ill. On the following day he was able to go to the mill where he worked and get his pay. During this time he felt slight pain in his back and a light headache. On the following day, Sunday, the attending physician saw him, I think, for the first time. The patient was complaining of excruciating pain in the middle and lower part of his back, and on this pain large hypodermic doses of morphine had no effect. On Wednesday morning at 5 o'clock I was called by the attending physician. The patient was still complaining of great pain and was very restless-very little fever-rapid pulse and rapid respiration. He died that morning about seven o'clock. About two hours before his death purpuric spots began to appear and when I saw him his abdomen and lower extremities were covered by them. One ecchymotic spot appeared in one eye. At the time we could get no history of exposure to small-pox. We talked about the case and wondered whether it could have been small-pox. A post mortem was suggested and held with two other physicians in attendance. Had we not held the post mortem I think we should have had enough suspicion to have demanded a private funeral. Another reason why we desired a post mortem was that at one time this man was badly mashed through the breast and back and there was quite a deformity in the spinal column. All of the organs examined were in a healthy condition except the liver. It was a large white liver which in my opinion had been diseased for a long time. We naturally attributed the purpura to the weakened condition of the system, brought about by the diseased liver, as this does occasionally happen. But the true cause, in this case I think, was due to the smallpox poison in the system, and on account of the drained liver not being able to perform its functions, resulted in this irregular and malignant form of smallpox.

The total number of cases in Bridgeport was fifty-nine. In Pease township, ten, and in Pultney township, three, making a grand total of seventy-two cases. I had personal charge and treated sixty-three of them. Of the sixty-three I lost three. One a child ten days old. Of the seventy-two cases there were thirty-four males and thirty-eight females. There were twelve under and sixty over five years of age. The youngest who died, was a boy born with the disease in his system, who was ten days old. The oldest who died, a male, was about thirty years of age. The youngest who recovered from the disease was three weeks old. The oldest who recovered was a man eighty-three years of age. The total number of confluent and hemmorhagic cases was nineteen. Total number of discrete cases, thirty-one, and of varioloid, twenty-two.

Total number of deaths, eight: Two infants—one ten days old, and the other three weeks old. One girl three years and another about eight years old. Three young male adults, and one young married woman. Of these eight deaths, I think there was but one who had never been vaccinated. Only one of the confluent cases had been vaccinated. About half of the discrete cases had been vaccinated. These were all older people who were vaccinated in their younger years. Most of the other cases of discrete smallpox were in children who had never been successfully vaccinated. Every one of the varioloid cases had been successfully vaccinated at some time or other.

Smallpox was found in forty-one families. In some houses there were two families, but these were counted as one in this list. The number of persons exposed in all was 235. By early and successful vaccinations including some who had protection by former vaccinations, very few took the disease.

#### INVESTIGATION OF AN EPIDEMIC AT CENTERBURG.

To the State Board of Health:

#### GENTLEMEN:

In accordance with my instructions I visited Centerburg, Knox county, Saturday, the 25th of April, to investigate the reported prevalence of some fatal disease at that place.

It appears that some time in November, 1895, an epidemic of measles began which swept over the village, affecting a large number of persons and continuing until a few weeks ago. The disease was of mild form, no deaths resulting from it. There are no cases of measles in the village at the present time.

About the second week in December, 1895, an epidemic of influenza began. This also was widespread, and somewhat severe in character. The disease manifested a special tendency for the neck and throat. In a large number of cases there was swelling of the external glands of the neck, with pain and stiffness of the muscles, and many cases were attended with more or less severe pharyngitis.

Later, erysipelas made its appearance, and eight cases of that disease developed. The last case of erysipelas was discharged cured April 23d, and the village is now entirely free from this disease, and from influenza.

Fourteen deaths have occurred in Centerburg since March 3d of this year. This unusually large number of deaths, and more especially the exaggerated newspaper accounts of it, created great alarm in the neighboring towns and country, and Centerburg has been shunned by outsiders for some time.

Two of the deaths are ascribed to influenza, three to erysipelas, two to peritonitis, two to nephritis, one to gangrene, one to apoplexia, one to prostatitis, one to rheumatism and one to organic heart disease. It is interesting to note that the cases of gangrene, prostatitis, rheumatism, both cases of nephritis, two of the three cases of erysipelas, and one of the two cases of peritonitis, were preceded by an attack, or at least the first symptoms of influenza.

The age feature of the decedents is also of interest. Only three were below the age of fifty, (37, 39 and 47), and the average age of all was sixty-two years

The influenza epidemic was by no means confined to adults, a large number of children being affected. Of the fourteen who died, ten had influenza, though this is given as the immediate cause of death in but two cases. Of the four who did not have influenza, one died of apoplexia, aged eighty-four; one from erysipelas, aged fifty-eight; one from peritonitis, aged thirty-seven, and one from heart disease, aged seventy.

It is my opinion that the excessive mortality in Centerburg during the past six weeks is, in the main, attributable to the epidemic of influenza, which acted both as a direct and predisposing cause of death. The sanitary condition of the village is most excellent, far better than is usually found in villages of this class. Streets, alleys and yards were remarkable for their cleanliness. Some time ago the board of health prohibited the use of privy vaults and required receptacles of wood or brick to be built above ground. I was informed that the village has been remarkably free from typhoid fever since this was done. (Wells are depended upon for water supply.)

As the village is now free from any unusual disease, and, as stated, is in excellent sanitary condition, there is no present occasion for any further action on the part of this Board.

I am indebted to the four physicians of the village, Drs. Lewis, Gunsaulus, Phillips and Merriman, for material aid in making this investigation.

Respectfully,

C. O. Probst, Secretary.

#### REPORT ON SCARLET FEVER AT FREDERICKTOWN.

To the State Board of Health:

GENTLEMEN:

On the 8th of June I was called to Fredericktown by the board of health on account of an outbreak of scarlet fever.

Upon arrival I met three physicians in whose hands all the cases occurred, and at their request examined most of the cases, as some of the citizens were inclined to doubt the diagnosis of scarlet fever, and for this reason the board of health was meeting with some difficulty in maintaining quarantine.

I found fifteen cases in ten families. There had been no deaths. Most of the cases were quite mild, with slight eruption; but in all the throat symptoms were tolerably severe. Many of the cases were ushered in with vomiting, high fever, running to 105 in one case and 104 in another, with a general scarlet rash, followed, in some cases, by desquamation such as is only seen in scarlet fever. In others there was little or no desquamation. There is no doubt, I think, that the diagnosis of scarlet fever was correct.

Facts I was able to obtain bearing upon the origin of the disease are of much interest. Seven of the patients in six different families were taken sick on June 1st, two on the 2d, one on the 5th, one on the 6th and four on the 8th. The case on the 6th, and three of those on the 8th were in families were the disease appeared June 1st, and may be considered cases of secondary infection. The sudden appearance of the disease in so many different households at one time points to a common exposure. There was no public gathering at which all of those first taken had been present, nor had they all co-mingled in any way at a time when (counting the incubation period of scarlet fever) they could have been exposed to infection.

Upon inquiring into the milk supply it was found that in each instance the families where cases occurred procured milk, wholly or in part, from one milkman. This man entered the dairy business about two weeks before the outbreak, and was supplying, he said, about eighty families with milk. Thus nearly thirteen per cent. of the families he supplied with milk had scarlet fever. The milkman was questioned closely in regard to illness in his family. He stated that along in March or April one of his two children had tonsillitis. Later his baby was ill from teething, but had a rash at the time. He denied having said, some days before, that his little girl, when she had sore throat, had a rash and afterwards "all peeled off." I interviewed three reputable witnesses, however, who stated to me that they heard the milkman make this statement. The physician who treated these children was, unfortunately, away, and I was unable to consult him; but the father protested that this physician had diagnosed tonsillitis in one and teething in the other.

A meeting of the board of health was called and the milkman appeared before it. I gave it as my opinion that the facts pointed strongly to the milk having been the means of distributing the disease, though this could not be positively asserted. I advised the board to stop the sale of the milk until the milkman's house, wagon, utensils, etc., had been disinfected under the supervision of the health officer, and gave instructions for doing it. I also advised destroying the man's milk tickets, new ones to replace those destroyed.

The board was maintaining strict quarantine. All houses were placarded, and all inmates kept in except, when the disease was first reported, the breadwinner of the family was allowed to go out, if he desired, but not to return to his home until the patients had been discharged and the house disinfected.

Respectfully,

C. O. PROBST, Secretary.

# REPORT ON TYPHOID FEVER AT DYESVILLE AND HAYDENVILLE.

To the State Board of Health:

GENTLEMEN:

At the request of Senator Carpenter, of Carpenter, and Mr. Vale, of Dyesville, I made an investigation of typhoid fever at these places. Carpenter and Dyesville are stations on the T. & O. C. Railway, in Meigs county. There are about a dozen houses in the former place and twice that number in the latter. Both are in Columbia township.

There was but one case of typhoid fever in Carpenter; origin not known. Some of the houses were in bad sanitary condition, and about the station there was stagnant water which the railroad company should look after.

In Dyesville there had been four cases of typhoid fever. In one house three persons, which was the entire family, all over fifty years of age, died of the disease. The fourth case in the village was a woman who was employed in this family as nurse. She had washed cloths used to receive bowel discharges, the patients being bedfast, and possibly contracted the disease in that way. A relative of this family where all died, and who acted as nurse, also contracted the disease there and died at her home in the country, a few miles from Dyesville.

The well from which these persons obtained water was near the kitchen door. The water in the well was within a foot of the surface, and of bad appearance.

The privies in Dyesville are without vaults, deposits being on the ground. The nearest one to the well in question is sixty or seventy feet away, and drains into a small run.

The sanitary condition of the village is bad. The houses are mostly built along one street near the foot of a hill. There is no proper outlet for surface drainage, and the filth from privies, hog pens, etc. settles and remains near houses on the lower side of the street. Most of the wells would be very properly considered unsafe.

Dr. W. S. Hart, the only physician in the place, stated that he had treated sixteen cases of typhoid fever in the township and five cases outside.

The township trustees had failed to organize as a board of health. I found one of the members and pointed out to him the duties of his board. A letter was received from the township clerk some time after my visit, stating that the trustees would meet and organize as a board on the 16th inst.

I returned by way of Haydenville, where ! stopped to investigate an outbreak of typhoid fever reported at that place. This is a small village' largely made up of employees of the Haydenville Mining and Manufacturing Company, which owns the houses in which the employees live. At the upper end of the village is a group of ten houses using water from one well. There were ten cases of typhoid fever in five of these houses. There were also two cases of typhoid fever in another house in the neighborhood which had its own well. These patients were frequent visitors at a relatives, where the common well is in use, and it is quite likely that they also drank water from this well.

This well is on the sidewalk just in front of a house where they had six cases of typhoid. It is a dug well, laid up with sewer tile. On a hill-side above the well, and about 100 feet away, are several privy vaults, one of them full to overflowing. If the ground water is moving towards the river, as seems probable, the well would be in line with the flow from these vaults. I collected a sample of water and submitted it to Prof. N. W. Lord, of the Ohio State University, who reported as follows:



COLUMBUS, OHIO, October 7, 1896.

DR. C. O. PROBST, Secretary, Ohio State Board of Health:

DEAR SIR: I have examined the sample of water you sent me marked "Well—Haydenville" with the following results:

#### Parts per 100,000.

Oxygen required	0.06
Free Ammonia	0.001
Albuminoid Ammonia	
Nitrous Acid	
Nitric Acid	1.75
Chlorine	<b>2.</b> 80
Total Solids.	35.5
Volatile Solids	10.0
Hardness (Temporary)	18.0
Hardness Permanent	

These figures show the water to be free from "organic matter" but the large amount of nitric acid, and the rather high chlorine show that the water is unsafe as coming from a polluted source. These substances being the residue left in water after the original organic or sewage pollution has been oxidized by filtration through soil, and while the water seems at present organically pure, the efficiency of this soil purification is variable and may at any time and without warning, fail. Furthermore, it cannot be safely inferred that disease germs will not persist in the water even after oxidation of the organic matter, when this source of the water is so obviously contaminated with sewage as in the present case.

Yours respectfully,

N. W. LORD.

I wrote the following letter to the General Manager of the Haydenville Mining and Manufacturing Company:

COLUMBUS, OHIO, October 8, 1896.

MR. J. W. JONES, Manager H. M. & M. Co., Haydenville, Ohio:

DEAR SIR: I visited Haydenville on last Saturday to determine, if possible, the cause of typhoid fever prevailing among your employees. From the history of the cases and an examination of the surroundings I am of the opinion that the disease is caused by the use of water from the well located in the street at the upper end of your village. I submitted a sample of this water to Prof. Lord for examination and enclose herewith a copy of his report. This examination seems to show, aside from the fact that you have cases of typhoid fever, that the water is liable to pollution, and is not a safe supply, and I trust in the interest of your employees, you will take steps to furnish them with a better supply.

Yours truly,

C. O. PROBST, Secretary.

His reply was as follows:

HAYDENVILLE, HOCKING COUNTY, OHIO, October 10, 1896.

Dr. C. O. Probst, Secretary, Columbus, Ohio:

DEAR SIR: I have your favor of the 8th inst, with analysis of the well water enclosed. I note carefully what you have to say and have just been up to that part

of the village where the well is located, in company with Dr. Biddle. We have insisted upon those using the water boiling it until we shall dig another well; this we expect to do the first of the week; we will change the location by going about 150 feet northwest, thus getting it further out of the probable line of drift from the sewage thought to be objectionable and at the same time we will put the well down considerably deeper. It is my opinion now that we will use galvanized iron pipe and make a "drive" well of it, although we wall our wells with sewer pipe and by cementing the joints can prevent surface drainage from getting into the well.

Yours truly,

THE HAYDENVILLE MINING & MANUFACTURING Co.,
Per J. W. JONES, Manager.

The correspondence was closed with the following letter:

COLUMBUS, OHIO, October 12, 1896.

MR. J. W. JONES, Manager The H. M & M. Co., Haydenville, Ohio:

DEAR SIR: Your letter of the 10th instant duly received, and I am pleased to note that you are preparing to furnish a new water supply in the place of the suspected well. If possible to find one farther removed from the source of pollution than the location you propose: I would advise you to select it. A driven well will, in my opinion, be somewhat safer than a dug well, even though sewer pipe with cemented joints is used.

Yours truly,

C. O. PROBST, Secretary.

Respectfully,

C. O. PROBST, Secretary.

#### REPORT OF TYPHOID FEVER AT GIBSONBURG.

Ohio State Board of Health, Office of the Secretary, Columbus, O, October 6, 1896.

To THE BOARD OF HEALTH, Gibsonburg, Ohio:

Gentlemen: At your request I visited your village on September 24, 1896, for the purpose of determining, if possible, the cause of the prevalence of typhoid sever there.

I learned from your physicians that typhoid fever is of frequent occurrence in the village; that in 1892 the disease was epidemic and fatal in a number of cases. The present epidemic began in June, and at the time of my visit nearly a hundred cases and five deaths had occurred. An inspection of the village, the history of the cases, as obtained from the attending physicians, and the results of the chemical examination of three of your wells, lead me to believe that the principal cause of your typhoid fever is the contamination of your wells by fecal matter. The geological conditions are extremely tavorable for such contamination. Your village is built on a thick bed of limestone, which in many places in the village is uncovered by earth, and in no place is this protecting cover more than a few feet in thickness. This bed of limestone is in



layers with wide cracks between, and water will flow through it as easily as through a sieve. This may be seen at either of the quarries from which the water has been pumped. The surface of the town is flat, and the surface drainage is poorly provided for. Owing to these conditions all filth placed upon the surface or in the thin layer of soil above the rock must be carried to the water vein from which the wells obtain their supply, and with but little purification. The privies are mostly without vaults, although several large uncemented vaults exist near the central part of the village. In many instances the wells and privies are close together-in some cases not more than fifteen or twenty feet apart. Under such conditions the wells could not escape pollution. There are several quarries within village limits, two of which have been abandoned and are full of water. These quarries have been made receptacles for various kinds of filth, including matter from privies. It is possible, with such soil formation, that your wells are more or less contaminated by polluted quarry water. These quarries also furnish ice, and as it is known that the poison of typhoid fever is not destroyed by freezing, it is possible that contaminated ice is chargeable for some of your cases of that disease. Three wells were examined, and I enclose a copy of the chemist's report.

Well No. 1, is the Stillson well on Madison street. Well No 2, is Swan's well on the same street, and well No. 3, is the butchers' well. All of these waters are bad, and these wells should be condemned at once and permanently closed. The chemist says that wells 1 and 3 are the worst he has ever analyzed. Well No. 3, has four privies within twenty feet of it. While these wells are perhaps worse than the average, there is great probability that all of your wells are more or less contaminated and unsafe for use. There can be little doubt that it is the pollution of your wells that causes your typhoid fever, and you may expect this disease to continue year after year unless radical changes are made in your sanitary arrangements.

Your only protection against present danger is to boil all waters to be used for drinking purposes, or which will in any way be taken into the stomach. Your future protection will depend on keeping the soil free from filth. All privies should have a tight receptacle—a box, tub or bucket, above ground, and the free and daily use of dried pulverized earth, and occasionally lime should be required. Other sources of danger such as filth from stables, hog-pens, household garbage, etc., should also be cared for and quickly removed so as to avoid soil pollution.

Your village has issued bonds for a public water supply, and this should be introduced as soon as possible, and all families should be urged to use it in preference to wells; but even then the healthfulness of your village will largely depend upon keeping the soil clean,

Respectfully,

C. O. Probst, Secretary.

### EXAMINATION OF WATER FROM WELLS AT GIBSONBURG.

COLUMBUS, OHIO, October 2, 1896.

Dr. C. O. PROBST, Secretary of State Board of Health.

MY DEAR SIR: I have made an examination of the three samples of water you sent me with the following results:

#### Parts per 100,000.

•	No. 1.	No. 2.	No. 3.
Oxygen required	0.38	0.18	0.71
Free ammonta	0.093	0.002	0.274
Albuminoid ammonia	0.022	0.014	0.038
Nitrous acid	0.160	trace	0.280
Nitric acid	7.40	10.40	21.60
Chlorine	25.00	10.50	89.40
Total solids	130.40	88.40	228.40
Temporary hardness	46.0	39.0	59.0
Permanent hardness	26.9	8.0	28.4
Loss of weight total solids on ignition	31.0	26.0	58.0

These waters are certainly unusual. Numbers 1 and 3 are without exception the most highly polluted waters I have ever analyzed. They contain large amounts of putrescent organic matter, probably animal in part, as judged from the high chlorine and ammonia as well as oxygen required. The extraordinary amounts of nitric and nitrous acid indicate a soil water highly impregnated with organic matter and not drained so that the products of oxydation continuously concentrate in the basin, until the water becomes a veritable "niter bed." Well No. 2, while not showing large amounts of actual animal or vegetable matter (low free, albuminoid ammonia and oxygen), shows by the high nitrates and chlorine that it is the same kind of water filtered more carefully but retaining evidence of very heavy past sewage contamination which should condemn it unless there were absolute proof that the filtration would always be equally sufficient.

Yours, very respectfully,

N. W. LORD.

#### REPORT ON DIPHTHERIA AT GAHANNA.

To the State Board of Health:

#### GENTLEMEN:

The Mayor of Gahanna, a small village eight miles from Columbus, called at my house Sunday, April 12th, and requested me to come there on account of trouble growing out of a dispute as to the nature of some cases of sore throat they were having.

I drove there next day with Dr. Turney, of Columbus, who was treating one of the cases. I examined his patient, a young married woman, and the disease was undoubtedly diphtheria. The nares had been invaded by the disease, and there was paralysis of some of the muscles of the pharynx and larynx. I learned that she had nursed a child that had had membranous croup. The child died in her arms. A child of this woman was also at the house where the child died, and a week later had sore throat, lasting two weeks. The mother, the patient whom I examined, doubtless contracted the disease from her boy.

Another child in the village had recently died of membranous croup. Two of the local physicians maintained that the disease was not diphtheria.

There is no board of health in the village, although formerly one had been organized, and the mayor had been acting as health officer, but without legal authority. On account of the dispute in diagnosis he did not know what to do about quarantine.

There was but one case at the time I was there, but the husband of the patient conducted a meat shop (nursing his wife at night), and many people were exposed. I ordered him confined to the house, and he agreed to remain there. I directed the mayor to establish quarantine in all suspicious cases of sore throat, which he promised to do.

Respectfully,

C. O. PROBST, Secretary.

### REPORT ON DIPHTHERIA AT PEMBERVILLE.

To the State Board of Health:

GENTLEMEN:

Pemberville is a village of about 1,200 inhabitants, on the C, H. V. & T. railway, in Wood county.

The health officer, Mr. John Seiler, Jr., has had considerable trouble in enforcing sanitary regulations. Some time ago he attempted to abate a nuisance arising from the drainage of a cemetery in the village. Not being able to get the owners to abate the nuisance he employed teams and men and abated it himself. He attempted to recover the amount expended, in the courts, but on account of some irregularities in his proceedings, due to his ignorance of the law, he was defeated. The board of health gave him little or no support in his suit.

Diphtheria made its appearance in the village, and fearing he would be unable to enforce proper measures to restrict its spread he sent for me. I visited Pemberville May 25th, and learned the following in regard to the outbreak:

The village had been entirely free from the disease for some time, but one of the village physicians was visiting cases in a neighboring town. A young lad who cared for his horses frequently went with him. About twelve days or two weeks before my visit this boy was taken with a sore throat, but he was not much ill and it was not suspected that his disease was diphtheria.

Some days later another boy in the family was taken with sore throat, and about the same time a young girl of nine or ten, a sister.

Previous to the occurrence of these last two cases, a minister and his wife, living across the street from this family, went to Cleveland to attend the Methodist conference, and left in this family their only child, aged

about two years. The child was taken home soon after the cases of diphtheria developed, but was itself taken with the disease and died while I was there.

A doubt was expressed by some persons as to the disease being diphtheria. I examined the cases and think there is no doubt that they were of this character. So much for the origin.

As to preventive measures—nothing was being left undone, and I wish to commend the health officer, who is not a physician, for the thorough manner in which he was enforcing measures to prevent spread of the disease. The two houses containing cases were being guarded day and night. All their provisions and other supplies were brought to them. Ropes were stretched across the street cutting off all travel past the houses. (This was perhaps unnecessary, but was a good object lesson.) Eleven persons, some of them adults, who had been exposed to the disease were quarantined in their homes. The attending physicians were making a complete change of outer clothing each time they visited a patient. Disinfection of the discharges was looked after by the attending physicians. A nurse to assist the minister's family was secured by the health officer while I was there.

I had few suggestions to make, and upheld the health officer in all he had done. As he had acted on his own responsibility, however, the board of health not having had a meeting since last September, I advised him to call a meeting at once to approve of what had been done. I talked with several members of the board and with some of the influential citizens to make sure that such approval would be given.

The health officer reports to me on June 13th that one case has occurred since my visit.

This is an example of what may be done in the prevention of diphtheria which, one could wish, were generally followed throughout the state.

Respectfully,

C. O. PROBST, Secretary.

### REPORT ON DIPHTHERIA AT PIQUA.

To the State Board of Health:

GENTLEMEN:

October 24th I was called to Piqua by the board of health on account of the prevalence of diphtheria. This disease had been prevailing there for some time prior to my visit, and there was a tendency for it to become epidemic. There were thirteen cases present the day I was there. The health officer reported to the State Board that from January 1, 1896, to October 31, 1896, seventy-six cases and five deaths from diphtheria occurred in Piqua. From October 31st to November 28th he has reported twenty-eight cases and two deaths from this disease. There had been considerable carelessness in regard to enforcing quarantine. A few days before my visit a physician was arrested for failing to report a case of

diphtheria. It was on account of this case that I was specially urged to come there. Supposing that the question of diagnosis was involved I took a culture tube with me, but found that it was upon the legal phases of the case that advice was wanted. I may say in this connection that the tube was inoculated from a case supposed to be follicular tonsillitis but which proved to be diphtheria. I met the mayor, health officer, and members of the board of health, and measures for controlling the disease were discussed.

November 14th a special meeting of the board of health was held. At that time twenty-four cases of diphtheria were reported in the city The health officer made the following report, differing materially from the report made to this Board:

January, 3 cases, February, 2, April, 4, May, 1, June, 1, July 3, August, 10, September, 13, October, 14, November, 21. Total 72 cases, with 9 deaths. The board at this meeting voted to close the schools and the health officer was instructed to enforce more rigid quarantine.

The latest reports show that the disease still prevails in Piqua.

Respectfully,

C. O. PROBST, Secretary.

### Public Water Supplies.

## REPORT ON PROPOSED CHANGES IN WATER SUPPLY OF ASHTABULA.

To the State Board of Health:

GENTLEMEN:

The receiver of the Ashtabula Water Company, Mr. G. D. L'Huilier, of New York City, made application for approval of proposed changes of their water supply.

At the present time the company is obtaining water from filter galleries laid under the sand beach along the shore of Lake Erie in front of the pumping station, and also direct from the lake, at or near the shore line. Considerably more than half the supply comes directly from the lake.

It is proposed to lay a twenty-four inch iron main into Lake Erie 2,500 feet from shore line in a northwesterly direction. At this point a submerged crib will be constructed in twenty feet of water.

The Ashtabula river discharges into Lake Erie about 2,000 feet east of the point from where water is now taken from the lake, but piers carry the river 800 to 1,000 feet into the lake, so that the present shore inlet is about 2,500 feet from the river's real outlet. The proposed crib would be located about 3,500 feet from this outlet. The Ashtabula river receives sewage from a considerable part of the city of Ashtabula although, as yet, only a limited number of house connections have been made. In addition the river receives the excrement of several hundred men employed about the harbor.

Surveys have been made of the lake bottom a thousand feet or more to the east of the line mentioned above. The water is shallower at this point, and at 2,500 feet from shore only sixteen feet of water is found. The expense of going to this point for water would be considerably greater than the one which the Board is asked to approve. The usual claims are made in regard to east currents in the lake carrying the sewage away from the intake and so protecting the water supply against the pollution. And this is no doubt true for most of the time. Ordinarily there is very little sewage going into the lake as there is practically no current in the river until the head waters are raised by storms. The

prevailing winds and prevailing currents wiil nearly always carry sewage flushed into- the river to the east; but this does not always occur, and there remains this danger, unusual it is true, of the sewage being poured into the lake when currents are westward, and this danger should be guarded against as far as possible.

I am clearly of the opinion that the water should be filtered to render it perfectly safe at all times, but do not believe it would be wise to impose this condition at the present time; especially so when we consider the experiments being made with mechanical filters at Louisville, Kentucky., and the experiment, we may call it, which will soon be made with such a filter at Lorain. Under the provisions of the company's charter they are permitted to furnish water from filtering galleries "and the shores of Lake Erie." The proposed change—to obtain water 2,500 feet from the shore—will certainly better the present supply.

I would therefore recommend that the proposed plans for obtaining an additional water supply be approved, subject to the condition that the Ashtabula Water Company agrees to filter its water supply, in a manner satisfactory to the State Board of Health, whenever it shall be found and declared necessary by said Board.

Respectfully, C. O. Probst, Secretary.

Ohio State Board of Health,
Office of the Secretary.
Columbus, July 14, 1896.

MR. G. D. L'HUILIER, Receiver, Ashtabula Water Company, New York City:

DEAR SIR: I enclose herewith a copy of the report on Ashtabula Water Supply.

Please note the conditions upon which your plans will be approved and inform me whether you will agree to these conditions.

I have heard from the members of the Board and your plans have been approved subject to conditions named. Awaiting your reply, I am,

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON PROPOSED EXTENSION OF WATER SUPPLY FOR BUCYRUS.

At a meeting of the State Board of Health held in Cincinnati, April 23, 1896, the following statement was presented in connection with the request for approval of the proposed extension of the water supply of Bucyrus:

"We propose to make an extension and enlargement of our present water supply at Bucyrus, O, as 10 lows:



"We will take the water from the Sandusky river when it is clearest, and pump it with a 3,000,000 gallon pump to a reservoir about three-quarters of a mile north of the present pumping station; said reservoir will have an estimated capacity of 81,000,000 gallons. The elevation of the high water mark in the reservoir will be about forty-two feet above the bottom of the river. The reservoir is proposed to be circular, with a diameter of 1,294 feet at the inside and top of the embankment. The inside slope being two to one paved with rip-rap stone pavement, the outside slope being one and one-half to one. The soil on the entire site to the outside slopes of the embankment will have an average depth of eight and one-half feet, and the embankment will have an average depth of twelve feet. A gate house will be provided with valves at various depths to permit us taking water from the clearest points.

"The water after storage is to be filtered through the Hyatt filters now in existence in our works, and which have a rated capacity of 750,-900 gallons per day. Our present consumption is from 300,000 to 400,-000 gallons per day with a maximum summer consumption of about 650,000 gallons per day. The quantity consumed is being reduced by the addition of meters placed on the supply pipes of the consumers. By way of explanation we might say that last year we placed between forty and fifty new meters, reducing the pumping for the succeeding year about 15,000,000 gallons. It is the policy of the company to add meters from time to time to prevent waste, and keep the consumption down to its legitimate use, hoping by this policy that the additional customers will not increase the present consumption materially.

"We shall probably have the reservoir pipe connected directly to the filters, allowing the water filtered by gravity from the reservoir to flow into a large cistern which is to be formed by altering the old well for that purpose. The present arrangement of pipes between the existing service pumps and the filter will remain the same, so that all the new work proposed will be entirely additional to what is now in existence and in operation.

"The new work proposed will affect the present supply in that we will have ample quantity and we will improve the quality by allowing sedimentation to take place in the storage reservoir.

"The reservoir will be built and owned by the Bucyrus Reservoir Company, a separate organization from the Bucyrus Water Company. The Water Company will arrange with the Reservoir Company for a supply of water. With this statement we submit a copy of the specifications under which the reservoir is to be built, and we will supply you with whatever drawings and maps you may need.

Very respectfully,

THE BUCYRUS WATER COMPANY,

GEO. L. WELLS, Engineer, FRANK A. KALER, Superintendent.



On motion of Dr. Hoover the Secretary was appointed to make an investigation of the degree of purification of water that can be effected by the Hyatt filters now in use in Bucyrus, bacteriological tests to be made by the company by a bacteriologist satisfactory to the Board, approval of the supply to depend on the results of such tests.

## REPORT ON PROPOSED WATER SUPPLY FOR CAMBRIDGE.

To the State Board of Health:

GENTLEMEN:

The city of Cambridge more than a year ago voted to construct water works, and \$60,000 worth of bonds were sold for that purpose. The question of obtaining a supply of water was given to a committee of council, and Mr. E. C. Cook of Cleveland was retained as engineer.

A number of wells were bored and, in August, 1895, at the request of the mayor and council I visited Cambridge for the purpose of obtaining information to enable the Board to act upon the application for approval of the supply. On concluding this investigation I advised the council to make pumping tests to determine the quantity of water available, before going further in the matter. A few conclusive tests were made, but later a board of water works trustees was created, and this board proceeded to make a thorough test of the wells under the direction of the engineer. Thirteen wells were put down by the city in search of water, and two additional wells were put down by the ice company. A comparatively small quantity of water was found. Five wells, pumped together by means of an air lift pump, after some hours, yielded but thirty-five gallons a minute. Deep wells, which have been bored to 2,000 feet for oil and gas, find plenty of salt water at 1,200 to 1,400 feet, but not enough water to drill with below that point.

It is apparently hopeless to expect to find a ground water supply for Cambridge.

At the request of the water works trustees I visited Cambridge again April 20, 1896. The trustees have now decided to use the water of Wills creek, a comparatively small stream but about 250 miles long, which flows through the city. The stream is dammed at several points within city limits. It is proposed to establish the intake at a point just above where Leatherwood creek empties into Wills creek. This is outside of and considerably above the city. A low dam will be built in the creek which will slightly increase the storage of water and which will cut off back flow from below. Water is to be pumped to a stand pipe on a hill, with provision for both direct and gravity pressure. About eleven miles of main piping will be laid at once, bids for the work having been advertised.

The stream, when I saw it, was very muddy and in spite of the fact that the last rainfall had been nine days before. This seems to be due to fine particles of clay which settle slowly. There is no sewage cast into the stream above the proposed intake, but Dayton and Byesville, small mining towns, are on the stream six or eight miles above. The drainage from several coal mines enters the stream above the intake.

It is not proposed to use the water for domestic purposes until provision has been made for filtering it. Inside house connections will not be permitted. The city is badly in need of fire protection, and there seems to be no other available water supply.

I desire to recommend the approval of the proposed supply subject to the condition that it shall not be used nor be made available for domestic purposes until it has been purified by filtration in a manner satisfactory to the State Board of Health.

The trustees wish to know whether the Board will approve purification of the supply by mechanical filtration.

Respectfully,

C. O. Probst, Secretary.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, April 25, 1896.

To the Board of Water Works Trustees, Cambridge, Ohio:

DEAR SIRS: The State Board of Health has considered your application to approve the water supply proposed for your city, to be obtained from Wills Creek at a point just above where Leatherwood creek empties into it, and the supply has been approved subject to the following conditions: That it shall not be used or made available for domestic purposes until it has been purified by filtration in a manner satisfactory to the State Board of Health.

Please notify me at once whether you accept these conditions.

Respectfully,

C. O. PROBST, Secretary.

CAMBRIDGE, OHIO, May 1, 1896.

DR. C. O. PROBST, Secretary of State Board of Health, Columbus, O.:

DEAR SIR: The Board of Water Works Trustees accepts the conditions of your permit of April 25th, to build a system of waterworks for fire and mechanical purposes, and contemplate putting in a system of mechanical filters for domestic purposes subject to the approval of your Honorable Board.

Any suggestions or information in regard to the best process of filtration will be greatly appreciated.

Thanking you for your kindness we are,

Very truly yours,

W. V. GARVIN, Secretary.



# REPORT ON THE PUBLIC WATER SUPPLY OF CANAL DOVER.

Ohio State Board of Health,
Office of the Secretary,
Columbus, May 20, 1896.

MR. H. C. DEARDORF, Secretary of the Water Works Board, Canal Dover, Ohio:

DEAR SIR: In answer to your request an examination was made of your public water supply on May 9th. The supply is obtained from a thick water-bearing deposit of sand and gravel, is abundant, and at the present time is of great purity. A sample of the water collected the day of our visit, was examined with the following results:

COLUMBUS, May 12, 1896.

### DR. C. O. PROBST, Secretary State Board of Health:

DEAR SIR: The sample of water received from Canal Dover has been submitted to a sanitary analysis by myself with the following results:

## Parts per 100,000.

Color	
Turbidity	none
Sediment	
Oxygen required	
Free ammonia	0012
Albuminoid ammonia	0046
Nitrogen as nitrites	
Nitrogen as nitrates	0139
Chlorine	266
Total solids	28.3
Temporary hardness	19.3
Permanent hardness	4.1

The small quantity of all the above constitutents indicates that this sample of water is of excellent quality. It is one of the most satisfactory samples that has ever been submitted for examination.

Yours truly,

CURTIS C. HOWARD.

Since the wells were put down a large tin-plate mill has been built close to them. A number of dwelling houses have also been erected near the wells, and others are building in the neighborhood. The houses are supplied with vaults in the sand and gravel, with open bottom and plank sides. There is therefore great probability that in time your wells will be polluted by leachings from privy vaults.

Three plans suggest themselves for preventing such pollution. The first, most radical and the one we recommend, is to abandon the present wells, leaving the pumping machinery where it is, and put down new wells far enough up the river to prevent any contamination. Enough territory around the wells should be secured so that there can be no source of pollution nearer than 1,000 feet.

The soil around the site of the wells now in use might be protected by sewerage, compelling all houses in the new district and the mill to connect with the sewer. This would still leave a good deal of soil pollution about houses uncared for; and it also may be difficult to satisfactorily dispose of the sewage.

The soil might also be protected by prohibiting the use of any but water tight vaults in the neighborhood of the wells. This is difficult to regulate. There would be a constant temptation to punch holes in the bottoms of the vaults, to save the expense of emptying, and it is hard to construct a vault that will not leak.

We are therefore strongly of the opinion that the best plan will be to change the location of the wells. No danger need be apprehended from using the water at the present time; the examination showing it to be exceptionally pure. But the change of wells should not be put off longer than a few months.

You will undoubtedly secure water of the same character by re-locating the wells above the mill; and if precautions are taken to prevent all local sources of contamination you will undoubtedly have an abundant supply of excellent water.

JOSIAH HARTZELL, C. O. PROBST.

Committee.

## REPORT ON A NEW WATER SUPPLY FOR DELAWARE.

To the State Board of Health:

GENTLEMEN:

I desire to make a first and partial report upon a new water supply for Delaware, Ohio. As is known from former reports (made both by the Secretary and by myself) the present supply is of questionable purity for several reasons: The water is collected in a large central well from a number of so-called filtering galleries, some of them open and directly connected with the river. A pipe leading to the deeper water of the river also connects with the central well, and this pipe is under the direct control of the engineer. At time of low water in the filtering basins, and especially at times of fires, a stop-cock can be opened and unfiltered water from the river admitted at once into the city mains. Such was the case at the time of a visit made last year by Dr. Probst and myself. The supply, such is it as, is not sufficient for the growing demands made upon it, especially in long continued dry weather such as we had in 1895. The

company has made very great efforts to secure a further supply from the valley in which the works are located, but without success. In this extremity the experiment of one deep trial well was made, and the success is sufficiently interesting to demand this partial report.

This deep well is located perhaps sixty feet east of the boiler-house and thirty-five feet north of the central well. Its depth is 225 feet, though the water supply comes from a point between 225 and 230 feet below the surface of the ground. This supply is under such pressure that an artesian flow was at once secured and this has continued for a number of weeks at this writing, rather increasing in force all the time. The well is six inches in diameter and the flow is fully equal to a three-inch stream. The geological section is a very interesting one. First, twenty feet of sand and gravel forming the glacial This was followed by eighty feet of limestone without any particular change in color or texture throughout the whole series. Beginning with the Hamilton group as the surface rock, theentire series would include the Delhi and the Delaware limestones, together with the lower members of the corniferous group. The reported thickness agrees with the determination of these rocks as made by the State Geologist, Dr. Edward Orton. He estimates the thickness at seventy-five feet. Below the limestones, the well was carried through a rock of a red and brown tint for ninety feet. This is undoubtedly the "waterlime" of the American geologists. It is a confirmation of this view that small quantities of gas were encountered; also that the drill cut through a number of layers of asphalt and of amorphous carbonaceous matters. Below 190 feet the drill penetrated a series of thin-bedded sand, impure limestone and shales. These all belong to the waterlime, as that rock is noted, especially in Ohio, for the irregular composition and bedding of its several layers. As before stated, it was when the drill reached 225 to 230 feet that the strong stream of water was found. The water is cool, perfectly clear and very pleasant to the taste. It has not yet been submitted to The question of the quantity of the water in such wells is a most important one. The very able superintendent of the Delaware water works, Colonel C. W. Wiles, while experimenting upon the flow of water, observed marked increase in the rate when a short section of pipe—twenty-seven inches in length—was removed from the top of the well. With this as a hint he has procured an "Ingersoll and Sargent Compressing Engine" and has installed the same. By means of a pipe one and one-half inches in diameter he carries a current of air down 144 feet under a starting pressure sixty pounds and a constant pressure of forty pounds. Within a few seconds after the pressure is turned into the well, the water rushes out of the mouth of the well, in a stream at least six inches in diameter and a measured rate of not less than 500,000 gallons in twenty-four hours. Connection has been made with the central well, already referred to, which is filled in less than two hours.

to the continued rains of the months of May and June (1896) and the remarkably cool weather the pumping demand is less than 310,000 gallons a day. It follows that this one well, assisted by the Ingersoll and Sargent compressed air engine, will provide all the water now demanded by the city of Delaware. The longest test thus far made was two hours. The flow was uniform and strong. No indication of overpumping noticed. At one of these experimental tests it required but a few seconds to bring about the increased flow, but it took the well thirty-five minutes, after the air pressure was turned off, to drop down to its normal artesian rate. Another point attracted my particular notice. The compressed air, released at a depth of 144 feet, at once rises with the water, completely aerating it. It falls into the central well with such force and volume that the whole body of water is disturbed, the current of falling water being carried several feet below the surface. If there is any sanitary value in exposing organic matter to the atmosphere, if oxidation is one of nature's methods of destroying injurious elements and compounds, certainly it may be tested here to perfect advantage.

We have already seen in this report that the water comes from a point 225 feet below the surface and that it exists there under a sufficient head to lift it to the surface of the ground. Whence the head? from any point within Delaware county, for though the site of the city of Delaware is not the highest within the county, the difference is not enough to account for the hydrostatic pressure. The following figures representing elevations in the county are from the surveys of the C. C. C. & St. L. Railway.

•	Above Sea Level.
.Morrow county line	970 feet.
Ashley	977
Eden	
Delaware	943
Berlin	946
Lewis Center	952

It will be noticed that Delaware is in a slight depression and that the land rises both to the north and to the south. 'Cowards the south, however, the rise is but a few feet and is soon overcome. To the north the increased elevation is maintained as far as the great divide between Lake Erie and the Ohio river which reaches its highest point at Mansfield and Crestline. The difference in elevation between Delaware and the top of the divide is fully two hundred and fifty feet. Whether the source of the new water supply is this high land in Ohio, or whether like the spring water of Mansfield, it must have a source still higher and at a further distance, are questions for continued investigation. Under all the circumstances I commend the use of this new water supply for the city of Dela-

Respectfully,

OHIO STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY.

COLUMBUS, August 11th, 1896.

MR. C. W. WILES, Superintendent Water Company, Delaware, Ohio:

DEAR SIR: The State Board of Health has considered your application for approval of an additional water supply for the city of Delaware, to be obtained from a deep well located about sixty feet west of the boiler house, and thirty-five feet north of the central well, and you are hereby notified that the same has been approved by the board.

Yours truly,

C. O. PROBST, Secretary.

## REPORT ON PROPOSED WATER SUPPLY FOR DELPHOS.

To the State Board of Health:

GENTLEMEN:

The town of Delphos, having about 5,000 inhabitants, proposes to introduce a public water supply, and voted \$75,000, for that purpose. Plans were prepared by the city engineer of Lima,

The supply is to be obtained from eight inch drilled wells located just outside the south corporation line. Six acres of land have been purchased for water-works purposes. The land is a level plain, with a small creek running through it. One well has been put down 191 feet. No record of borings was kept, but there was about twenty-five feet of clay soil to the rock, which is a hard limestone. The well is cased thirty-two feet.

A steam pump was attached and the well was pumped continuously for forty-eight hours, which lowered the water only about twenty feet.

The water has a distinct sulphury smell and taste, which is lessened after pumping the well for some time, and which almost or quite disappears on standing. It is proposed to put down six or seven wells fifty feet apart. It was recommended that the distance between wells be increased with the view of increasing their yield. A stand pipe one-hundred and thirty feet high will be erected within the six acre tract. The site of Delphos is nearly level, and no higher point could be found for the stand pipe, which will furnish the supply, except in case of fires, when pumping can be direct.

The site is well chosen for a water-works plant, and there appears to be no chance for pollution of the supply.

After having the well pumped for a short time (it had been pumped continuously for two days preceding my visit) a sample of the water was collected and sent to Prof. C. C. Howard of Columbus. He reports as follows:



November 27, 1896.

## DR. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: The sample of water from Delphos has been submitted to a sanitary analysis by myself with the following results:

## Parts per 100.000.

Turbidityvery	slight.
Sedimentvery	
Color	.0
Oxygen required	.282
Pree ammonia	.0224
Albuminoid ammonia	.0034
Nitrogen as nitrites	.0003
Nitrogen as nitrates	.0125
Chlorine	.53
Total solids	
Temporary hardness	28.7
Permanent hardness	

The amount of free ammonia in this sample is worthy of note, but from the small amount of the other nitrogenous constituents, as well as the fact that the water is from a considerable depth, the ammonia may be regarded as derived from the reduction of nitrates, and hence not subject to the influence attaching to it if found with high nitrogenous bodies. There seems to be no reason to object to its purity, though its hardness must be noted.

Yours truly,

CURTIS C. HOWARD.

Everything indicates that the proposed water supply for Delphos is pure and free from danger of pollution, and it is hereby recommended that it be approved.

Respectfully,

C. O. PROBST, Secretary.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, December 2, 1895.

TO THE MAYOR AND COUNCIL, Delphos, Ohio:

DEAR SIES: The State Board of Health has considered your application for approval of a water supply, to be obtained from deep wells located near the southern boundary of your village, and I hereby notify you that the proposed supply has been approved.

I enclose herewith a copy of the chemical analysis of a sample of the water.

Yours truly,

C. O. PROBST, Secretary.



## REQUEST FOR APPROVAL OF WATER WORKS FOR ELYRIA,

ELYRIA, OHIO, June 17, 1896.

To the State Board of Health:

DEAR SIRS: On behalf of the city of Elyria, we desire to present to you for your consideration, suggestions or approval, the plat and description of the proposed intake for the new water supply of the city of Elyria.

The general scheme consists in taking water from Lake Erie by means of a submerged crib and 1,500 feet of twenty-four-inch cast iron influent pipe, delivering the water into a pump well located within the pumping station, and taking suction from this pump well and forcing the water through a 24-inch force main to the distribution and standpipe in the city of Elyria, a distance approximately of eight miles.

In the consideration of the intake for this proposed water supply we have desired to keep as far away as possible from the mouth of Black River, and also from the mouth of Beaver Creek, a stream through the shale formation, which empties into Lake Erie about four miles west of Black River. Keeping away from the mouth of Black River on account of the possibility of sewage contamination from this stream, and also from the mouth of the Beaver Creek on account of the extreme roiliness of this stream during times of excessive rainfall. Both the Black River and Beaver Creek passing through the shale formation carry down in time of freshets large amounts of finely disintegrated shale, a material in our opinion extremely hard to handle by filtration when the water contains a large proportion of such shale. Samples of the water in the Black River have been taken during a time of freshet when the precipitated shale from the sample would be deposited to a depth of two and one-half inches in a bottle fourteen inches in height, and the same result would no doubt be true of the water of the Beaver Creek.

Soundings have been taken on two locations, the one known as the Wallace farm the the other farm known as the Lane farm; which locations are approximately 1,000 feet apart. At each place it is possible to obtain a depth of some twenty feet of water at a distance of 1,500 feet from the shore line.

A study of the currents of Lake Erie at these points, and also from information had from fishermen and residents in this vicinity, lead us to believe that the almost universal trend of the current is from the west to the east, justifying the conclusion that the water from these intakes could not be contaminated with sewage from the Black River, and in our opinion taking everything into consideration, we feel that one of these two locations would furnish an acceptable and desirable source of water supply for the city of Elyria.

We present with this communication a plat showing the shore line of Lake Erie in this vicinity, and also a profile of the lake bottom at the proposed points of intake.

Respectfully submitted on behalf of the city of Elyria,

F. S. REEFY, President of the Board of Health.

M. H. LEVAGOOD, Mayor.

L. E. CHAPIN, Consulting Engineer.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, JUNE 19th, 1896.

Messis. M. H. Levagood, Mayor, F. R. Reefy, President of Board of Health, L. E. Chapin, Consulting Engineer, Elyria, Ohio:

DEAR SIRS: Your application for approval of a public water supply for the city of Elyria, to be obtained from Lake Erie by means of a submerged crib fifteen hundred feet from shore line and about two miles west of the mouth of the Black river, was considered by the State Board of Health at a meeting held June 18, 1896.

It was voted to approve the proposed supply; but the Board wishes to express the opinion that too much confidence should not be placed in the currents of Lake Erie as a means of protecting the proposed supply at all times against sewage from Elyria and Lorain, carried into Lake Erie by Black river. It has been demonstrated in several lake cities that sewage is at times carried much-farther than two miles in a direction contrary to usual currents.

It is therefore recommended that land be acquired at once, sufficient and suitable for sand filtration of the water supply, and that arrangements be made for filtration at the earliest practicable date.

Respectfully,

C. O. PROBST, Secretary.

## REPORT ON PROPOSED WATER SUPPLY FOR GREENWICH.

To the State Board of Health:

GENTLEMEN.

On Friday, March 6, 1896 I received two telegrams from the Secretary of the Board in regard to a visit to Greenwich, Huron county, Ohio where the corporation is expecting to introduce a public water supply in the near future. This town with perhaps a population of one thousand, lies on the Cleveland division of the C. C. C. & St. L. R.

The town site is sufficiently rolling to give fair surface drainage, and to allow for a sewer system with a satisfactory outlet whenever the same shall be projected. At present, the problems of a public water supply and an electric light plant are absorbing all thought and energy. The conditions are about as follows:

All of this portion of Ohio has a glacial soil known as the "boulder clay." At Greenwich, this soil is fourteen or more feet in thickness, is very compact and fine grained. Underneath this in many places, if not

throughout the county, there is a bed of quicksand graduating into common sand and gravel. Naturally this sand-bed is water bearing. One very remarkable peculiarity of the sand bed from which the public water is to be drawn, is that while five to seven feet in thickness it is not over one hundred and fifty feet in width. It can be traced for many miles at about the same distance below the surface when measured as a level. The general direction is from northwest to southeast. This peculiarity will be understood when we remember that all the soil has been transported from some other locality. The movement must have been a surface one, the soil, sand and other matters being pushed ahead of the great moving ice sheet. If the glacier came from the north-east, the sand moraine would take the direction just stated. There is much reason for thinking that the stone, which forms the foundation for the soil and sand layers, was deeply eroded before the glacial disturbance. If this be true, the sand might be deposited in one of these pre-glacial water courses. Whatever be the geological explanation, the fact to be considered is a deposit of sand five to seven feet deep, one hundred and fifty feet wide extending in a general north-west to south-east direction and everywhere covered by a compact boulder clay. Within the limits of the town of Greenwich, three or more springs break out at the edge of this sand moraine, and a dozen other springs are known within a distance of one or two miles. These springs never run dry even in the very dryest weather. Not a single one is known to have failed during the past summer. The corporation has put one "driven well" as a test on a piece of ground outside of the town but near the residence of Doctor Reynolds. The water seems abundant, but no such test has yet been made as will settle that question. A well, on the same street and less than five hundred feet distant, was pumped by a fire engine continuously for some hours without lowering the supply.

An engineer of Chicago, Mr. B. J. Ashley, has been employed to prepare plans. The plans are not as yet completed but they contemplate a stand pipe one hundred and twenty-five feet high and ten to twelve feet in diameter. Two miles of mains ranging from eight inches to four. The engine to be used also in the production of electricity for lighting the town.

The question has been voted upon by the people and carried eleven to one. A sample of the water will be sent at once to Prof. C. C. Howard for examination. Pending that report, I can commend the water supply and shall so recommend to the Board, if the chemical analysis is satisfactory.

Following is a copy of the sanitary analysis:

COLUMBUS, O., March 19, 1896.

DR. C. O. PROBST, Secretary State Board of Health.

DEAR SIR: The sample of water sent by Prof. Nelson from Greenwich has been submitted to a sanitary analysis with the following results:

#### STATE BOARD OF HEALTH.

### Parts per 100.000.

Appearance—	
Turbidity	none
Sedimentve	ry sligh
Co <sup>1</sup> .or	0
Oxygen required	14
Free ammonia	009
Albuminoid ammonia	010
Nitrogen as nitrites	000
Nitrogen as nitrates	104
Chlorine	3.25
Total solids	66.3
Temporary hardness	18.1
Permanent hardness	31.5

In this sample a knowledge of the source and surroundings would be of great great aid in forming an opinion as to its quality. The free ammonia, nitrates and chlorine, while not as high as frequently found in polluted waters, are sufficiently so to make profitable careful inquiry on these points. The large amount of solid matter and particularly the extreme permanent hardness render it not an ideal water.

Yours truly,

CURTIS C. HOWARD.

Respectfully,

E. T. NELSON, Committee.

OHIO STATE BOARD OF HEALTH.
OFFICE OF THE SECRETARY.
COLUMBUS, March 27, 1896.

MR. W. B. BURT, Mayor, Greenwich, Ohio.

DEAR SIR: The State Board of Health has caused an examination to be made of the plans and location of water works proposed for your village; and you are hereby notified that said plans and location have been approved.

I enclose a copy of the chemist's report on the examination of a sample of the proposed supply.

Yours truly,

C. O. PROBST, Secretary.

#### PURIFICATION OF THE WATER SUPPLY OF LORAIN.

In 1895 the Water Works Board of Lorain made application to the State Board of Health to approve a change in the source of water supply of that city. The change consisted simply in the extension of the intake pipe a short distance further into Lake Erie. After an investigation the Board reported that its approval would be withheld as it was not satisfied that the proposed lake intake would be sufficiently removed from the mouth of Black river to avoid sewage contamination. Mr. George W.

Rafter, civil engineer, was employed by the Water Works Board to report upon the change in the water supply of Lorain and he recommended that the intake crib should be extended about two miles, and as a further precaution that the water should be filtered.

Following is a communication from the Water Works Board requesting approval of the purification of the water supply of Lorain by mechanical filtration, with a copy of the agreement entered into between the Water Works Board and the O. H. Jewell Filter Company and the reply made to said request:

LORAIN, O., June 23, 1896.

DR. C. O. PROBST, Columbus, Ohio.

DEAR SIR: On behalf of the Board of Water Works Trustees I write to ask permission of the State Board of Health for using the O. H. Jewell mechanical filter for purifying the water supply for the city. If you need drawings and description of same kindly advise and oblige,

H. J. BARROWS, President, Water Works Trustees.

CHICAGO, ILL., May 1, 1896.

To the Mayor and Board of Water Commissioners, Lorain, Ohio.

Gentlemen: We propose to furnish and erect for you upon your foundations and in your building, a complete Jewell gravity filter plant consisting of six (6) gravity filters, with filter beds 17 feet in diameter by 4 feet deep of silica sand, contained in clear seasoned cypress tanks of 3 inch dressed material, 14 feet high and having within themselves settling chambers of 60 gallons total capacity.

We guarantee said filter plant, when operated in accordance with our usual instructions, shall have a capacity of purifying an average daily amount of 3,000,000 gallons of water taken from your intake in Lake Erie, so that the same shall be clear and bright, free from suspended matter and suitable for domestic use. We further guarantee that the filters shall make an average reduction of not less than 97 per cent of the bacteria in the unfiltered water (it is understood that our guarantee is being fulfilled satisfactorily whenever the number of bacteria in one cubic centimeter of the filtrate does not exceed the recognized limit of safety, which is 200 bacteria per cubic centimeter).

Our proposition includes the furnishing and connecting up by us of all pipes, valves, shafting, belting, and pulleys in the filter house, and complete working drawings, plans and specifications for the filter house; which plans, specifications and drawings are to be attached hereto and made a part of this contract, marked "exhibit A;" also the furnishing and erecting by us of a 10-horse power engine on your foundations and the connecting up of all valves, steam and exhaust pipes of the same within the filter house; also a steam sterilizing device for each filter, by means of which the filter beds can be boiled and sterilized if desired; also with each filter, our new automatic controller, regulating

the output of the filters to a constant and uniform delivery, irrespective of whether the beds are newly washed or not; also two cypress tanks 8x12 feet for coagulants, with all connecting pipes, with pump for delivering and regulating the supply of the solution of sulphate aluminia to the unfiltered water; none of which aluminia shall appear in the filtered water; you to furnish and use said sulphate of aluminia when necessary to obtain the above guaranteed standard of purity. We also guarantee that the material and workmanship of the above filter plant shall be first-class in every respect and agree to replace without cost any part thereof that may prove defective within one year from erection,

The price to be paid for above to be ...... , as follows:

....... on delivery at Lorain of all materials for said filter plant except the silica beds, which on account of bulkiness cannot well arrive until the erection of the filters ready to receive them; ....... on erection of the filters ready for operation; and ...... six months after completion and starting up of plant, provided the above guarantees have meantime been fulfilled by us. All experiments to determine the average bacteriological reductions effected by the filters shall be conducted at your expense, at or near the filter plant, and the bacteriologist employed by you shall be a man of recognized integrity and skill in his work. If a question arise between us as to his integrity or skill, we agree to submit the matter to the arbitration of Mr. A. J. Moxham, President of the Johnson Compuny.

If the above proposition meets with your favorable consideration and acceptance, we will at once visit Lorain with our draughtsman and prepare plans without delay, and will have the filters at Lorain ready for erection as soon as foundations are ready.

Yours respectfully,

O. H. JEWELL FILTER Co., O. H. JEWELL, President,

WM. M. JEWELL, Sec'y-Treas.

In case the above proposition is accepted, I hereby guarantee the performance of the undertakings of the O. H. Jewell Filter Co., therein contained, including all guarantees and also in case of failure of said Jewell Company to make good their guarantee, upon due notice, to refund any payments that may have been made to them on account of said contract, and to remove from Lorain all of said filter plant furnished by said Jewell Filter Company.

QUINCY, ILL., May 1, 1896.

W. B. Bull.

LORAIN, OHIO, May, 1896.

We, the undersigned citizens of Lorain, in consideration of work being begun by the O. H. Jewell Filter Company, upon the construction

of the above named filter plant without delay, do guarantee that the Board of Water Works Trustees of Lorain will, on or before July 1, 1896, accept the above proposition.

(Signed) H. J. Barrows,
M. H. Lampman,
W. W. Whitehouse,
E. M. Pierce,
E. Bruell,
E. A. Braun,
John Starry,
C. Wiegand,
F. C. Arnold.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, July 22, 1896.

MR. H. J. BARROWS, President, Water Works Trustees, Lorain, Ohio:

DEAR SIR:—Your application for approval of a proposed change in the water supply of Lorain, viz.: purification of the present supply by mechanical filtration, using a Jewell gravity filter, has been considered by the State Board of Health.

The Board, while hoping that mechanical filtration will afford a satisfactory method for purifying polluted waters, does not consider the experiments heretofore made conclusive as regards the efficiency of such filters in *continuously* removing pathogenic or other bacteria.

The Board, however, approves of your proposal to make a six months' trial of the Jewell filter, but suggests the following change in your contract with the Jewell Filter Company, if possible, viz.: That the filters shall be deemed satisfactory as regards bacteriological reductions provided the experiments with the Jewell filter, now being conducted at Louisville. Ky., under the supervision of Mr. Geo. W. Fuller, show for six months a daily average reduction of not less than 97 per cent. of the bacteria in the unfiltered water.

This change is suggested for the reason that it is believed that a more satisfactory trial is being made at Louisville than will probably be made at Lorain, considering the expense involved. The Board recognizes that different waters present different problems in filtration, and that it would be very much better for Lorain to have the bacteriological tests apply to lake water; but unless this is done in the most thorough manner, and the effluent is examined several times daily, the test will not be conclusive. A filter must be continuously efficient to protect against disease, and averages, unless they are made up from a large number of experiments repeated at short intervals, may be very misleading. If an examination, as outlined above, is contemplated at Lorain, the suggestion as to change in contract is withdrawn.

Respectfully,

C. O. PROBST, Secretary.



## REPORT ON PROPOSED WATER SUPPLY FOR LOVELAND.

To the State Board of Health:

GENTLEMEN:

Having been appointed by the president to make an inspection of a proposed water supply for Loveland, Ohio, I visited that place April 2, 1896, in company with Mr. E. F. Layman, of Cincinnati engineer of the proposed water works, and respectfully present the following report:

Loveland is a town of about one thousand inhabitants on the Little Miami River. The pian now con emplated is to take the water from the Little Miami, without purification if that will meet with the approval of the State Board of Health. The river would yield an abundant supply at all times of the year, but, in my opinion, it would be of questionable character, especially in the summer when the river is low and the proportional contamination much greater.

The Little Miami is subject to many sources of pollution. It flows through miles of country largely devoted to grazing; along its banks are several towns and villages in which are manufacturing establishments that discharge their waste materials into the river; it receives the sewage of Xenia, forty-three miles above. These sources of pollution will undoubtedly increase each year. That the amount of contamination of the Little Miami is now so great as to render the water unfit for domestic uses, is shown by chemical analyses made at different times and by different persons of the water taken from the Ohio River above and below the mouth of the Little Miami. Although the volume of water in the Miami is very small as compared with the Ohio, chemical analyses show that there is such a noticeable addition to the amount of organic pollution of the Ohio by the Little Miami that the water of the latter stream at low stages must far exceed the limit of safety.

At the time of my inspection the river was unusually high and a chemical analysis of water taken at that stage of the river would not give reliable indication of the purity of the water at ordinary stages. No water was, therefore, taken for analysis. To reach a correct conclusion in regard to the purity of the water from such a source, chemical and biological examinations should be made when the river is at its lowest stage and the amount of organic pollution proportionally the greatest. As such a condition will probably not be present for several months, we can now be guided only by our knowledge of the stream in past seasons and our knowledge of the various sources of contamination to which it is subjected.

I would recommend that this source of supply be disapproved except upon condition that some process of purification shall be adopted that will be satisfactory to our Board.

Another possible source of supply has received some consideration on the part of the water works board, that is from drilled or driven wells. No tests have, as yet, been made, but they are in contemplation should the river not be approved as a source of supply.

Respectfully,

Byron Stanton, Committee.

Ohio State Board of Health.

Office of the Secretary.

Columbus, April 25, 1896.

MR. E. F. LAYMAN, Civil Engineer, Cincinnati, Ohio:

DEAR SIR: The State Board of Health has considered your application, on behalf of the authorities of the village of Loveland to approve the water supply proposed for that village. The supply has been disapproved except upon condition hat some process of purification shall be adopted that will be satisfactory to the State Board of Health.

Respectfully,

C. O. PROBST. Secretary.

# REPORT ON PROPOSED WATER SUPPLY FOR LYNCHBURG.

To the State Board of Health:

GENTLEMEN:

I have the honor to present the following report of an inspection made on March 18, 1896, of a proposed source of water supply for Lynchburg, a town of about one thousand inhabitants in Highland county, on the Hillsboro branch of the B. & O. S. W. Ry.

It is proposed to take the water from a large well in the north part of the town, to be sunk about sixteen feet in a stratum of gravel bearing considerable water even in dry seasons. Overlaying the stratum of gravel is a stratum of clay which, at the well, is four feet thick, but which crops out in a ravine a few feet north of the well. In this ravine is a stream of water flowing from the direction of the town, which discharges into the east fork of the Little Miami river. As the water from the ravine might, on account of the gravelly nature of the soil, find its way into the well, it is proposed to lay a sewer with cemented joints through the ravine and fill it up so as to remove this possible source of contamination. Immediately south of the well are some barnyards, but these are on ground that is to be condemed for water-works purposes, so that any danger from this source will be removed.

Two hundred feet north of the well is Freiberg & Workum's distillery. The cattle pens of the distillery are north of the distillery buildings and are at least one-thousand feet from the well, are on lower ground and are near the east fork of the Little Miami river, into which the surface drainage runs, so that I think there can be no danger of contamination from this source.

About three-hundred feet east of the well is a cemetery or about two acres. It has been long in use but it is to be abandoned, a new one having been opened some distance from the town. The soil at the cemetery is clay to a depth greater than any of the graves and the drainage of the cemetery is in a direction away from the well, so that no danger is apprehended from this source by the citizens, or by the engineer, Mr. E. F. Layman, of Cincinnati.

Aside from the demand for a greater supply of water for fire purposes, there is need of a public source of supply for domestic uses. In the south part of the town the wells frequently fail and some families have to depend upon distant wells for their supply.

The proposed well promises the greatest yield of any source yet found although numerous test wells have been sunk.

The report of Prof. C. C. Howard of a chemical analysis of the water accompanies this. As the report says, "The water seems to be one of considerable purity." While the amount of chlorine is high, this may be of mineral origin and hence without significance. The low oxygen required and the ammonias would indicate that there has been no recent pollution of the water.

As the danger of surface contamination can be removed by removal of the barnyards and by properly sewering and filling the ravine near the well, I believe this can be made a safe source of supply and I would recommend its approval on condition that the water-works authorities shall remove the sources of possible danger here pointed out.

COLUMBUS, O., March 20, 1896.

### Dr. C. O. PROBST, Secretary State Board of Health:

DEAR SIR: The sample of water forwarded by Dr. Stanton from Lynchburg has been examined by myself with the following results.

## Parts per 100.000.

Oxygen required	
Free ammonia	
Aluminoid ammonia	
Nitrogen as nitrites	
Nitrogen as nitrates	.0647
Chlorine	6.46
Total solids	64.9
Turbidity:	none.
Sedimentvery	slight.
Color	.0
Permanent hardness	38.2
Temporary hardness	14.3

No information as to the source of this water is at hand, and the following is based on these figures alone. The water seems to be one of considerable purity. The large amount of solid matter would indicate that it is from lower strata, and while the chlorine would be objectionable in a shallow well, if it did arise from animal excreta, the ammonias and oxidizable matter would be higher.

Yours truly,

COLUMBUS, O, March 26, 1896.

DR. B. STANTON, Cincinnati, Ohio:

DEAR SIR: Your letter of March 21st, received and answer delayed unavoidably. Your full description of the surroundings has been noted. The low oxygen required and ammonias show that there is no recent pollution of the water. The high chlorides may remain from a former contamination or they may be of mineral origin and hence without significance. The nitrogen in nitrites and nitrates, which is rather high, has doubtless at some past time existed in the tissues of plants or animals. Whether this time is so recent as to make it a mark of suspicion, or so remote as to be without meaning requires outside data for confirmation. As stated in the former letter, this water has the appearance of one from lower strata, in which case it would be difficult to object to it on these figures. If from a well twelve feet deep, I must still insist that it has not been exposed to a recent contamination, but the inferences drawn from the high chlorides and nitrites and nitrates would be somewhat modified. Even at twelve feet the water may come from lower strata, but if not explanation of the high chlorides is in order, and the high nitrites and nitrates throw a shadow of suspicion over the water. The water is an excellent illustration of one requiring the fullest study to arrive at a reliable opinion.

Yours truly,

CURTIS C. HOWARD.

Respectfully,
BYRON STANTON, Committee.

OHIO STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY.

COLUMBUS, April 1, 1896.

MR. THOMAS MONTGOMERY, Village Clerk, Lynchburg, Ohio:

DEAR SIR: The State Board of Health has caused an examination to be made of the proposed water supply for the village of Lynchburg, to be obtained from a large well, sixteen feet deep, to be situated in the north part of the village, and you are hereby notified that the same has been approved, subject to the following conditions, to-wit:

First—That a ravine passing near the well, and discharging into the east part of the Little Miami river, be filled up, after placing in said ravine a carefully laid sewer with cemented joints.

Second--That barnyards and other sources of pollution south of, and in the vicinity of the well, be removed.

Third—That these conditions be complied with before the water supply is allowed to be used for domestic purposes.

I enclose herewith a copy of the report of the committee, and of the chemist.

Yours truly,

. C. O. PROBST, Secretary.

# REPORT OF AN INSPECTION OF THE PUBLIC WATER SUPPLY OF MARION.

Ohio State Board of Health.

Office of the Secretary.

Columbus, October 12, 1896.

TO THE BOARD OF HEALTH, Marion, Ohio:

DEAR SIRS: The letter of your secretary, Dr. E. H. Raffensperger, under date of October, 7, 1896, enclosing a copy of a resolution adopted by your board, requesting the State Board of Health to inspect the public water supply of your city, was duly received, and the committee beg leave to submit the following report of their inspection.

We visited Marion on the 9th instant, and through the courtesy of members of your board which we gratefully acknowledge, were enabled to inspect the water supply without loss of time. We learned that a water works company is furnishing the supply and is under an agreement to furnish the city with "a good, potable supply." Water is obtained from the ground by the excavation of a comparatively long and narrow basin or reservoir with a channel 20 to 25 feet wide leading from this basin to a pump well from which the water is taken. There is a copper screen in the pump well for removing leaves and other large floating objects.

The water comes from a sandy gravelly soil, which has, except during the drought of last season furnished sufficient water for all purposes. The maximum consumption is placed by the engineer at 600,000 gallons per day.

The basin from which water is contained is in a field about three miles from the central part of the city, and is far removed from unavoidable sources of contamination. Great carelessness exists, however, in regard to local and easily controlled conditions, which have rendered the water impure and unfit for use. The basin contains an abundant crop of grasses and weeds which, by their decay are adding a considerable amount of organic matter to the water. The same is true of the sloping sides of the basin, which are of natural earth.

The pump house and well are in a field separated from the field containing the basin or reservoir by a wire fence, but this fence is broken, so that the cows and horses, which are pastured in the pump house field, have free access to the reservoir. Evidence of this was found on all sides from the manure which plentifully sprinkled the banks of the reservoir into which rains would wash it; in several places manure was actually

found at the water's edge. We consider that under these conditions the water is far from being a "good potable supply," and steps should be taken at once to compel the water works company to correct these abuses.

Near the pump house are ten drilled wells, varying in depth from 100 to 200 feet. During a part of last summer when the supply in the basin failed, one of these wells by pumping furnished most of the city's entire supply, and for a period of about forty days steady pumping at this rate lowered the water in this well only three feet.

The location of these wells gives every reason to believe that they will furnish very pure water, and the pumping experiment referred to, indicates an abundant supply. It is possible that these wells will furnish water of a greater degree of hardness than that now in use, but from a sanitary standpoint, which should always be the first consideration, the wells have very superior advantages. There is no opportunity for this water to be contaminated, as with the present supply; it will be cold enough in summer to be pleasant without ice, and the growth of algæ and vegetable organism, always found in ground water exposed to light and air, and which frequently give objectionable odor, taste and color to the water, will be avoided.

It is noteworthy that, so we were informed, only about twenty-five per cent. of the people of Marion use the public water supply. It is highly probable that the introduction of a better public supply would considerably decrease the use of wells. This is an important matter. You have been having much typhoid fever in your city recently, with a number of fatal cases. There is every reason to suspect that this was caused by the pollution of your wells. Wells in cities become each year more and more liable to pollution, and undoubtedly the healthfulness of your city would be very greatly improved if a pure public water supply should come into general use.

Summing up our conclusions in brief, we condemn the present public water supply as unfit for use on account of local conditions which could and should be at once removed.

We are of the opinion that the wells would furnish an abundant supply of water which, from a sanitary standpoint, would be in every way more desirable than the present supply.

Respectfully,

THOS. C. HOOVER, C. O. PROBST, Committee.

# REPORT ON CHANGE IN THE SOURCE OF FUBLIC WATER SUPPLY FOR MEDINA.

To the State Board of Health:

GENTLEMEN:

The village of Medina has asked your approval of a change in the source of the public water supply. The present supply, which has been in use for many years, is obtained from a drilled well one hundred and sixty feet deep. This water is pure but excessively hard, and is not considered desirable for domestic use or for steam boilers.

A new well has just been drilled by the water works trustees. well is eight inches in diameter and one hundred feet deep. The upper ten teet is a yellowish clay. This rests upon blue shale of a hundred or more feet in thickness, ninety feet of the well being in this shale. The well is cased off thirty-eight feet down. The location of the well is not all that could be desired. It is on property belonging to the village, and is within corporation limits. The land is lower than the main part of the village, and is near the bank of a small creek. There are at least two uncemented privy vaults within two hundred feet of the well. The character of the soil affords great if not complete protection against surface contamination. The "Root well," spoken of in the chemist's report, which follows, is located about three quarters of a mile in a direct line from the Medina well, by which the one just described is designated. The "Root well," has just been drilled, is of the same depth and in the same geological formation as the Medina well. This well is in a large field, far removed from any local sources of pollution, and it is therefore of interest to compare the results of the chemical examination of these two wells.

Both of these wells were pumped continuously for some time, and either will supply sufficient water for present needs. The "Root" well is intended to supply water for a private industry. The water is pleasant to the taste, and perfectly soft. There are no streams that can be utilized for a water supply for Medina, and dependence must be placed on wells.

I respectfully recommend that the proposed change in water supply be approved, but that the authorities be required to cause all privy vaults within five hundred feet of the Medina well to be cleaned and filled with fresh earth; dry earth closets above ground to replace them.

Below is a copy of the chemist's report:

COLUMBUS, JULY 22, 1896.

Dr. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: The samples of water from Medina have been examined by myself with the following results:



Parts per 100.000. Medina well. Root well. Color..... .0 .0 Turbidity..... None. None. Sediment..... Very slight. Very slight. Oxygen required..... .208 .240 Free ammonia.... .1834 .1550Albuminoid ammonia..... .0048 .0042 .0003 Nitrogen as nitrites..... .0005 Nitrogen as nitrates..... .0067 .0108 Chlorine..... 33.04 69.02 Total solids..... 243.0 238.3 Lime ...... Bare trace. Bare trace. Sulphates...... Very large amount. Very large amount. 63.8 Carbonates ..... 38.7

These two samples which do not differ widely from each other are chiefly remarkable for the very large amount of mineral matter they contain in solution, consisting almost entirely of sodium sulphates, chlorides and carbonates. Of these, the sulphate is present in largest quantity. Owing to the almost complete absence -of lime salts, and the presence of sodium carbonate, the waters have no hardness, that is, no soap is required to decompose the calcium and magnesium salts ordinarily found in waters. If the solids consisted as in most waters largely of lime and magnesia salt, the water of these samples would be so hard as to be entirely unfit for domestic use, but as these solids are chiefly of alkaline salts, this objection does not exist. As regards the organic purity of these samples, the large amount of free ammonia, which in a shallow well water would indicate a considerable amount of decomposed nitrogenous matter, is without significance in these waters from lower strata, as all the other compounds of nitrogen are present in but small quantities. I believe that no objection can be made to these waters on the basis of the chemical examination. Very little difference in the purity of the two samples is found to exist.

Yours truly,

CURTIS C. HOWARD.

Respectfully submitted,

C. O. PROBST, Secretary.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, August 13, 1896.

TO THE WATER WORKS TRUSTERS, Medina, Ohio:

SIRS: The State Board of Health has considered your application to approve a public water supply for the village of Medina, to be obtained from the well recently bored on grounds belonging to the village, and you are hereby notified that the supply has been approved, subject to the condition that all uncemented privy vaults within five hundred feet of the well be cleaned, and that the further use of such vaults within the distance named be prohibited.

Enclosed is a copy of an analysis of the proposed supply.

Respectfully,

C. O. PROBST, Secretary.



# REPORT OF THE WATER SUPPLY AND SEWERAGE FOR MILLERSBURG.

To the State Board of Health:

GENTLEMAN:

At the request of the President, I went to Millersburg May 29th, and together we went over a line of sewers which private individuals were proposing to build. The outlet was planned to discharge into Killbuck river within corporate limits, and but a short distance above where a bridge, which is used by a large number of people, crosses the river, and a short distance below where an infiltration well is located on the banks of the river, and which is the source of public water supply. Theriver is a small stream except when in flood, and in extreme dry weather has a very small flow. A few hundred yards farther down the stream a sewer from the court house discharges into the river.

We stated to the gentlemen who are proposing to build this sewer that in our opinion the outlet selected was objectionable, as it was liable to give rise to a nuisance which would annoy a great many people. We suggested that an engineer be called to plan an outlet farther down the river, where, possibly, a small volume of sewage may be discharged without detriment. The matter will be probably again before the Board.

In this connection attention should be called to the public water supply of Millersburg, recently introduced, and which has not been approved by the Board.

In April, 1895, Dr. Wise and I consulted with the authorities who were searching for a public water supply. We advised against wells on ground owned by the village and within corporate limits, as the location was extremely bad. After looking over the whole field we recommended a large infiltration well on the bank of the river but on the opposite side of the village.

It was decided, however, to look for water in another direction, and a deep well was bored and Dr. Wise furnished a sample of the water for analysis.

Prof. Howard reported as follows:

COLUMBUS, OHIO, June 28, 1895.

DR. C. O. PROBST, Secretary of the State Board of Health CITY:

I have made a sanitary analysis of the sample of water received from Millersburg, and marked "From Millersburg, Ohio, Water Works, collected by Dr. S. P. Wise, June 24, 1895," with the following results:



#### EXECUTIVE DOCUMENTS.

## Parts per 100,000.

Oxygen Required	.19
Free Ammonia	0.58
Albuminoid Ammonia	.003
Organic Ammonia	.005
Nitrous Acid	
Nitric Acid	one
Chlorine	45.5
Total Solids	26 2
Temporary Hardness	28.2
Permanent Hardness	
Total Hardness	33.7
Iron	1.75

This sample which is evidently from a deep vein presents the rather common characteristics of these waters in that the free ammonia is present in quantities that in a surface water would indicate the presence of large amounts of nitrogenous matter in a state of decomposition. A study of the other constituents containing nitrogen, as the albuminoid and organic ammonias, nitrous and nitric acids, justifies the belief that the nitrogen in the free ammonias has existed as nitrates, and the free ammonia has resulted from the reduction of these nitrates from the action of some reducing agent. The large quantity of chlorine, which in a shallow well water, under some conditions might indicate the presence of large amounts of animal excreta, has here no such significance, but existing chiefly in combination with sodium as common salt, indicates that the sample is a salt water, containing, if all the chlorine is combined with sodium, 74.9 parts per 100,000, or 43.7 grains per gallon of common salt. This deducted from the common salts leaves 51.3 parts per 100,000 of solids not salt, consisting largely of the carbonates of lime and magnesia with smaller portions of the sulphates of these bases. Iron is present in unusually large proportions in this sample. This fresh water is probably clear and contains the iron as ferrous carbonate held in solution by carbon dioxide, but the sample after standing shows a deposition of iron as ferric hydroxide, the iron thus forming an insoluble compound which precipitates. This large amount of iron will form one of the chief objections to the water as a public supply. While the total solid matter in the water is quite high, due to lime and magnesia saits, it is not more than is frequently present in deep vein waters. The organic purity of the water assures entire freedom from contamination, and the chief objections to the water are found in its mineral constituents, the large quantity of iron salts and of common salts.

Yours truly,

CURTIS C. HOWARD.

We advised against the use of this water, and a well was sunk on the banks of the river, at the place first recommended by us. Prof. Howard reported on this water as follows:

COLUMBUS, OHIO, July 8, 1895.

DR. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: I have made a sanitary analysis of the two samples of water received from Millersburg, July 6th, with the following results:



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## Parts per 100.000,

	No. 1.	No. 2.
Oxygen required	.076	.072
Free ammonia	.003	.003
Albuminoid ammonia	.003	.002
Organic ammonia	.005	.005
Nitrous acid	none	none
Nitric acid	trace	trace
Chlorine	.18	.20
Total solids	28.6	28.8
Temporary hardness	18.6	17.3
Permanent hardness	4.5	<b>5.8</b>

Both samples are clear and contain but the barest trace of iron. These figures show these samples to be decidedly different from the first sample and of much better quality for domestic and technical purposes. The excessive quantity of iron of the first sample, which would have been a great detriment in the use of the water, and the large quantity of chlorides are not found in these samples. The very low figures obtained for these constituents which indicate contamination by organic matters prove these samples to be of a high grade of organic purity, in fact, these waters deserve special mention among those of the state for these reasons. It should be a matter of congratulation that the search for a satisfactory water supply was not abandoned until this was obtained.

Yours truly,

CURTIS C. HOWARD.

A large infiltration well was put in which has furnished an abundant supply of pure water. This water is pumped to a covered reservoir on a high hill; giving gravity pressure.

We respectfully recommend that the proposed water supply for Millersburg be approved.

Respectfully,

C. O. PROBST, S. P. WISE, Committee.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, JUNE 19, 1896.

TO THE WATER WORKS TRUSTEES, Millersburg, Ohio:

DEAR SIRS: At a meeting of the State Board of Health held in Cleveland June 18, 1896, a report was made on the public water supply for Millersburg, and it was voted by the board to approve of such supply.

Yours truly,

C. O. PROBST, Secretary.



# REPORT ON THE PROPOSED WATER SUPPLY FOR MINERAL POINT.

To the State Board of Health.

### GENTLEMEN:

The authorities of Mineral Point having requested the examination of a proposed source of water, and having received instructions to examine and report on same, I made a visit of inspection November 13th. Mr. Thomas Osborne, mayor, and the members of the town council kindly furnished all available facilities for observation.

The village, numbering about 1,500 inhabitants, is situated in a depression between nearby hills several hundred feet higher than the village. The town site is on a table of land which is partly surrounded and bisected by gullies of varying depth. Through the bottom of these flow small streams. On the hill-sides, above and below the village, are located a number of coal mines and factories. In many places the lock crops out at the surface, and in no place has the soil much depth. The slope of the rock-seams is at a small angle, but is constant, in the general direction of the southeast. The conformation of the valleys are due to erosion; not to volcanic forces.

The present water supply is mostly from wells, and wells yielding a good supply are so few as to cause much inconvenience. There is no adequate supply for fire protection. The village has appropriated about \$12,000, to be used in building water works. During the past summer a well 700 feet deep and eight inches in diameter has been drilled with a view to obtaining a town supply.

This well is located on a slope southeast of the town and about half a mile from the thickly settled district. The surface at the well is rock; there is no soil covering. Mayor Osborne has furnished me a report, showing the material and approximate thickness of rock stratifications which is here reproduced as follows:

Shale sandstone	10	feet
Solid sandstone	30	46
Soap stone or shale	18	"
Limestone	4	"
Coal under limestone	3	46
Blue shale mixed with sulphur particles	100	"
Sandstone	4	"
Blue shale	175	"
Sandstone	4	"
Conglomerate	2	**
Blue shale	45	44
Sandstone	12	41
Blue shale	223	"
Sandstone	42	<1
Blue shale	28	41

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700 feet.

No water was found in the upper fifty-eight feet, nor until the limestone seam had been reached. Nor was water found at any point more than seventy-five feet below the surface. Nearly all the water therefore is derived from the strata of coal and limestone about sixty feet from the surface. The water level remains at a depth of eighteen feet from the surface. The quantity was tested by pumping. When pumping at the rate of 58,000 gallons in twenty-four hours the water-level went down to a point about thirty-seven feet below the surface and remained there.

While at the well a sample of water was taken which was sealed and sent to Prof. C. C. Howard, who reports on the same as follows:

COLUMBUS, November 23,1895.

DR. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: The sample of water received from Mineral Point has been examined by myself with the following results:

### Parts per 100,000.

Turbidity	very slig
Sediment	slight.
Color	
Oxygen required	1.332
Free ammonia	
Albuminoid ammonia	
Nitrogen as Nitrites	
Nitrogen as Nitrates	
Chlorine	
Total solids	14.1
Temporary hardness	3.7
Permanent hardness	4.3

Although the residue on evaporation was rather small as indicated in the low total solids, on ignition there was much charring, showing the presence of considerable organic matter. The first odor was that of peaty or vegetable matter, followed immediately by the odor of burning nitrogenous matter. The unusually large amount of oxygen required, free and albuminoid ammonias and nitrogen as nitrates point strongly to the presence of animal matter in quantity too large to be permissible in a water of any pretentions to good quality.

Yours truly,

CURTIS C. HOWARD.

I was not greatly surprised at the unfavorable showing made by the chemical analysis. The quality of this water has been impaired. This impairment is probably due to the fact that the rock dip, and the drainage route of these subterranean waters from the inhabited district, is in the direction of the well. From the fact that small springs emerge from the surface in the vicinity, and in some places at points higher than the well, it would appear that these rocks are divided by fissures and cleavages that might permit the infiltration of surface drainage.

The ascertained facts in this case render it impossible to recommend this water for the town supply. Also, owing to the large mining works

in the vicinity, there is no surface supply that could be thought of for drinking water purposes.

On the other hand the need of water is urgent. The village is a thrifty, growing place and gives promise of great industrial importance. The health, the growth and the general welfare already demand the distribution of a safe and plentiful water supply. In seeking a source of such supply the dictates of wisdom would be to choose a location that is assured against surface contamination, either by going higher up on the rock formation, or, better still, by going to some valley, or surface depression which is sparsely inhabited, which furnishes a more ample store of water, and which is separated from the town site by a protecting ridge or rock-divide.

Respectfully,

JOSIAH HARTZELL, Committee.

OHIO STATE BOARD OF HEALTH.
OFFICE OF THE SECRETARY,
COLUMBUS, December 3, 1895.

TO THE MAYOR AND COUNCIL, Mineral Point, Ohio:

DHAR SIRS: I enclose herewith a copy of a report, presented by Mr. Hartzell, on the proposed water supply for your village. This report has been submitted to the individual members of the state board of health and they have voted to approve the report: That is, they disapprove of the proposed supply.

Trusting that steps will now be taken to secure a supply which will be satisfactory in every respect, I am,

Yours very truly,

C. O. PROBST, Secretary.

# REPORT ON PROPOSED WATER SUPPLY FOR MT. STERLING.

To the State Board of Health.

GENTLEMEN:

The village of Mt. Sterling proposes to take its water supply from an eight inch well about 160 feet deep. The well is located at the edge of the village, but as there is a clay bed forty or fifty feet thick over the rock in which the water is found, local sources of contamination, should they arise hereafter, would not be liable to contaminate the supply. I would therefore recommend the approval of the proposed supply.

The report of the chemical analysis of the proposed water for Mt. Sterling is as follows:



COLUMBUS, OHIO, January 9, 1896.

## DR. C. O. PROBST, Secretary of State Board of Health:

DEAR SIR: The sample of water received from Mt. Sterling has been submitted to a sanitary analysis by myself with the following results:

## Parts per 100.000.

Turbidityn	one.
Sediment	
Color	.0
Oxygen required	.112
Free ammonia	.0732
Albuminoid ammonia	.0068
Nitrogen as nitrites	.0000
Nitrogen as nitrates	.0016
Chlorine	.084
Total solids	60.9
Temporary hardness	86.1
Permanent hardness	6.3

No information as to the source of this sample has been furnished and all statements are based on these figures alone. This water has the character of one obtained from the deeper veins as is indicated by the high total solids and low albuminoid ammonia, oxygen required and nitrogen as nitrites and nitrates. The high free ammonia is not infrequently found in waters of this class, and while this amount would point to serious contamination by decomposing nitrogenous matters if found in a shallow well water and accompanied by large quantities of other constituents, I believe that no such significance can be attached in this case.

Yours truly,

CURTIS C. HOWARD.

Respectfully,

C. O. Probst, Secretary.

OHIO STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,

COLUMBUS, January 16, 1896.

# MR. J. W. HANNAWALT, Corporation Clerk, Mt. Sterling, Ohio:

DEAR SIR: You are hereby notified that the source of water supply for Mt.

Sterling has been voted upon and approved by the State Board of Health.

Yours truly,

C. O. Probst, Secretary.



## REPORT ON PROPOSED WATER SUPPLY FOR NORWALK.

To the State Board of Health.

GENTLEMEN:

In compliance with the request of the Board I visited Norwalk January 18th. The authorities of the town courteously placed at my disposal the means of acquiring needed information in regard to the proposed water supply.

In the summer of 1895 a proposition to appropriate \$100,000 for the purpose of providing a new supply for the Norwalk water works was submitted to a popular vote and was favorably passed upon. Mr. L. E. Chapin was employed as consulting engineer.

Borings in the vicinity have failed to indicate the presence of underground waters of the requisite quantity or quality. Several surface streams are available. None of the latter suffer the deterioration from mining influences so common in the eastern section of Ohio, but swampy places and black soils rich in organic matter, do in several instances modify the desirableness of waters from several of the collecting areas. The engineer's decision was in favor of a supply from Norwalk Creek.

The normal spring-water flow in this stream is less in quantity than in several of the other streams. On the other hand the surface soil of the Norwalk creek water shed is of the upland, sandy and gravelly variety. The area is somewhat sparsely settled. The surface is rather level so that an active, torrent flow with quick contribution of wastes is seldom to be apprehended. The region may conveniently be subjected to the sanitary surveillance which is permitted by state law. Depressions in the channel of the stream make admirable provision for the construction of impounding reservoirs for sedimentation and storage.

The plan of the engineer provides for two reservoirs or storage basins. The upper basin has a capacity of 118,000,000 gallons. There is a spill-way to permit the escape of surplus storm waters after the reservoirs are full. In this reservoir the water comes to a state of rest, sedimentation takes place, and the clean water is admitted into the lower basin which has a capacity of 190,000,000 gallons. From this basin a pipe system conducts the water to the pumping station and stand-pipe in the edge of the town.

The normal, spring-fed flow of the creek is probably not in excess of 500,000 gallons a day. Inasmuch as it is the aim of the works to provide for a daily consumption of three million gallons, the rain water would be largely in excess, and would reduce such degree of hardness as may be disclosed by a chemical analysis of the creek water. A sample of the latter was sent to Prof. Howard whose report of the same is as follows:

COLUMBUS, OHIO, January 24, 1896.

## DR. C. O. PROBST, Secretary of State Board of Health:

DEAR SIR: The sample of water sent by Mr. Hartzell from Norwalk and received January 20th, has been examined by myself with the following results:

## Parts per 100.000.

Appearance—	
Turbidity	None.
Sediment	None.
Color	0
Oxygen required	34
Free ammonia	0052
Albuminoid ammonia	0162
Nitrogen as nitrites	0005
Nitrogen as nitrates	0891
Chlorine	476
Total solids	32.4
Permanent hardness	9.8
Temporary hardness	14.4

All the figures indicating organic purity in this sample are somewhat higher than will be found in a water of the best quality. The results are somewhat surprising to me, as from the description furnished I had a right to expect better results than have been obtained. Most of these determinations have been duplicated with closely agreeing results. The solids and hardness are so high as to indicate that a considerable part of this supply is from a spring, and I should certainly expect that this part of the supply would be of better quality than these figures show. It is not to be understood that this is a polluted supply, most of the figures come within the limits of a permissible water, but as before stated, it was not what was expected by me.

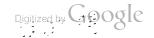
Yours truly,

CURTIS C. HOWARD.

As the result of this analysis, of the data and conclusions reached in the report of the engineer, and of my own observations I recommend the approval of Norwalk's proposed water supply. As the report of the engineer constitutes a very interesting and instructive resume of the engineering methods in ascertaining the quantity and quality of water obtainable from a given water shed I append the same to, and make it a part of this report.

Respectfully,

JOSIAH HARTZELL, Committee.



#### REPORT OF THE CONSULTING ENGINEER.

CANTON, O., December 31, 1895.

To the Honorable, the Mayor and City Council, Norwalk, O.:

GENTLEMEN; In pursuance of a resolution of your council, duly passed, authorizing a report upon the subject of Norwalk Creek as being a suitable water supply for the city of Norwalk, I hereby have the honor to make the following report:

In the study of the question of the public water supply, the first consideration is the amount of daily consumption, including under this term all consumption from which revenue is obtained, and all leakage and losses of every nature. The present consumption, so far as my information extends, is not far from an average of one and a half million gallons per day. This amount of water is supplied to the citizens of Norwalk through approximately 750 services, giving a result of approximately 2,000 gallons consumption per service per day, which is undoubtedly above the general average, inasmuch as you have two railroads which are large consumers. And with an acceptable supply of water, both as to quality and quantity, it is somewhat problematical as to the amount of water which would be used per day by the city of Norwalk when its population reaches 20,000. A surface supply by reason of its being soft water generally results in a much larger consumption per service than that of a supply coming from drilled wells. However, without going into details, it seems expedient to provide for a daily supply of three million gallons as that necessary in making estimates for an improved supply.

### SURVEYS.

Careful surveys have been made of the water shed of Norwalk Creek and the areas available for storage purposes lying in the valley of the creek. These surveys developed the fact that the total area of water shed of Norwalk Creek above the intersection of the Old State road and Medina road to be 5,100 acres. This drainage area is comparatively free from contamination and relatively sparsely settled, the soil being a heavy gravelly clay and generally well under-drained, presents favorable conditions for the collection of a surface supply.

#### RAINFALL.

There is hardly any phenomenon of nature from which it is so difficult to induce definite conclusions as that of rainfall. As a matter of fact, rainfall is of such a varying quantity that it is hard to lay down general rules in regard to its phases, even with the aid of carefully compiled statistics of rainfall. Many of these statistics are extremely misleading and inaccurate, but the government reports obtainable on these subjects are the most reliable sources of information accessible to the en-





gineer in localities where such records have not been carefully obtained for this express purpose. Generally speaking, however, the amount of rainfall, as determined from the government reports, is less than the rainfall actually occurring, since most of the gauging of such rainfall is from the tops of high buildings, and careful investigation of engineers, who have given this matter a long study, has shown it to be a fact that instruments located close to the surface of the ground show a larger amount of rainfall than those at higher elevations.

Again, in making deductions or arriving at conclusions as to rainfall from such reports, it is frequently impossible to obtain a series of reports extending back to a period remote enough to develop any law on the action of nature in this respect. In considering this problem, a careful study has been made of the rainfall records from the government stations at Toledo, Sandusky and Cleveland.

The observed amount of rainfall at these stations are given in tables Nos. 1, 2 and 3, made a part of this report. They have also been platted for the purpose of graphically illustrating the various phases of rainfall on Plats Nos. 1, 2 and 3. From an inspection of these records, this general truth is apparent: The rainfall is least at the Toledo station, still larger at the Sandusky station, and greater at the Cleveland station. The mean annual rainfall being 30.7 inches at the Toledo station over a period of twenty-five years; 35.91 inches at the Sandusky station over a period of seventeen years; and 37.83 inches at the Cleveland station over a perion of forty years.

Considering the minimum precipitation at each of these three stations, we find it to be 21.33 inches at the Toledo station, occurring in 1894; 24.89 inches at the Sandusky station, occurring in 1889; and 27.34 inches at the Cleveland station, occurring in 1888. And in the absence of any definite rainfall statistics at Norwalk, the rainfall records of the Sandusky station may be taken as applicable to the water shed of Norwalk Creek, and the minimum rainfall of 24.89 inches would seem to be a reasonable assumption as to the amount of rainfall had in any dry year over the water shed of Norwalk Creek. Especially so, since local observations taken at points south of Lake Erie, show a total annual rainfall somewhat in excess of that observed at lake stations.

#### FLOW OF STREAMS.

The total flow of any stream must equal the total rainfall on its water shed less evaporation, and in some cases less percolation to other drainage valleys lying at lower levels, and the difference between the rainfall and the run-off of the streams may be safely assumed to be the total evaporation from the water shed supplying said stream. Our Ohio streams have an annual spring flood, the water gradually rising during the spring months, then slowly declining during the summer and autumn months, reaching a minimum stage in the months of October and November.

The run-off of streams as observed in cases where accurate measurements have been made, show the run-off to be from forty to fifty per cent. of the total precipitation, being undoubtedly smaller during the period of drought due to excessive evaporation, and is practically independent of the soil forming the water shed, except in the case of very small streams.

To determine the run-off from any given stream, we can compare its water shed and run-off with those of other water sheds, whose run-off has been accurately determined during a series of years, and taking the percentage of the run-off to the rainfall and supplying it to the rainfall of the driest year in any case, we can approximate closely the probable run-off of any given stream.

Definite information on this subject is had from many eastern water sheds, but very little information of this nature is obtainable from western water sheds. The Cochituate water shed, forming a part of the water supply of the city of Boston, has many characteristics which are quite similar to that of Norwalk Creek—the rainfall however, being materially different, but the percentage of water collected from the Cochituate shed may be assumed to be a fair criterion of what may be expected from the water shed of Norwalk Creek.

The driest year observed on the Cochituate water shed for nine years, was in 1864, during which year forty-three per cent. of the total precipitation reached the storage lakes. The percentage collected for each month being as follows:

January 71	_	
February 159	per	cent.
March 48	per	cent.
April	per	cent.
May 57	per	cent.
June 84	per	cent.
July 39	per	cent.
August 19	per	cent.
September 32	per	cent.
October 22	per	cent.
November	per	cent.
December 31	per	cent.

The excess of percentage in February above that of actual rainfall is due to the snowfall of winter months lying on the ground and melting and running off in the succeeding months.

However, in using these percentages, it must be remembered that the snowfall of Massachusetts is materially in excess of that of Ohio, and, for the purpose of applying these percentages to Norwalk Creek one-half of the per cent. collected in February will be used.

The driest year as observed by the Sandusky records being that of 1889, the rainfall for that year will be taken as representing the minimum

rainfall in any dry year, and the percentage of water collected in the various months of the year will be assumed to be those of the Cochituate water shed for the year 1864 with the exception of February.

Assuming the drainage area at 5,100 acres less the water surface of fifty-seven acres, and a further deduction of forty-three acres to cover all contingencies of evaporation, results in 5,000 acres, from which we are to determine the amount of supply available from this water shed and the storage capacity necessary. In this consideration it may be well to state that various water sheds in the state of Ohio, so far as approximate estimates of water collection can be obtained, show a daily supply of about 400,000 gallons per square mile of water shed with the storage capacity of 30,000,000 gallons. With eight square miles of water shed it would be necessary to have approximately 240,000,000 gallons storage; and this amount of storage has been used in computation of rainfall, percentage of same collected, and a daily consumption of 3,000,000 gallons, which results are shown in table No. 4.

TABLE NO. 4.

Showing the monthly rainfall during an extremely dry year, the percentage of such rainfall collected in each month, the net rainfall collected in each month, the cubic feet of water collected per month, the monthly consumption in cubic feet, the surplus of water collected over the consumption in each month, and the deficiency collected under the consumption of each month, and the storage water in reservoirs at the end of each month.

Month.	Recorded rain- fall.	Per cent. collected.	Inches collected.	Cubic feet for the month col- lected.	Monthly consumption.	Surplus at end of month.	Deficiency at end of month.	Storage at end of month.
Jan	2.43 1.27 2.33 1.45 4.52 2.29 .98 1.25 1.84 1.27 1.71	71 80 48 66 57 84 39 19 32 22 23 31	1.72 1.02 1.12 .96 2.53 1.92 .38 .24 .59 .28 .39	31,218,000 18,513,000 20,328,000 17,424,000 45,919,500 34,848,000 6,897,000 4,356,000 10,708,500 5,032,000 7,078,500 20,509,500	12,400,000 11,200,000 12,400,000 12,000,000 12,400,000 12,400,000 12,400,000 12,000,000 12,400,000 12,400,000 12,400,000 12,400,000 12,400,000	18,818,000 7,313,000 7,928,000 5,424,000 33,519,000 22,848,000 	5,503,000 8,044,000 1,291,500 7,318,000 4,921,500	18,818,000 26,131,000 32,000,000 32,000,000 32,000,000 26,497,000 18,453,000 9,843,500 4,922,000 13,031,500

In an inspection of the above table, it will be seen that the storage basin would be full during the first six months of the year, then be drawn upon to supply the consumption during the next five months. The storage basin being full at the end of the month of June, and at the end of the month of November, containing 4,922,000 cubic feet or 36,918,000

gallons of water. On this basis it is apparent that a storage capacity of about 240,000,000 gallons of water should be attained in order to provide against any possible contingencies. This means approximately 270,000,-000 gallons capacity of storage basins, as it will not be wise to draw the water so as to entirely empty the basins.

#### EVAPORATION.

In deducing the results shown in the above table, it may be suggested that the question of evaporation has not been fully considered, but the drainage area used in making computations has been assumed to be 5,000 acres instead of 5,100 acres as actually shown on the drainage map.

The observed evaporation from large areas of water having considerable depths, varies from eighty to one hundred per cent. of the total yearly precipitation, and it is believed to be a reasonable assumption that the deduction of one hundred acres from the total drainage area would provide for all the losses from evaporation. This percentage above mentioned is simply a comparative one, as generally speaking there is no connection between rainfall and evaporation. The evaporation being less during the winter months than in the summer months, greatly exceeding the rainfall in the summer months and much less than the rainfall during the winter months..

### STORAGE AVAILABLE.

In considering the method of obtaining storage in the valley of Norwalk Creek, we find from the cross sections it is possible to construct a reservoir embankment across the valley in three localities, the first known as "Line A" and located on the old State Road, the second known as "Line B" and located at a point just above the old State Road; and a third known as the "Upper Dam" and located on cross sections R and S, all as shown on Plat No. 5.

In this problem it will be desirable to construct two basins if possible, the larger one located below, the smaller one above, and from which an overflow may be constructed in order to discharge the flood waters of the stream at times when the basins are full. This upper basin would therefore catch practically all of the silt carried in suspension, leaving the lower basin to be a receptacle for clear water only. This arrangement also enables the overflow to be constructed across the divide separating Norwalk Creek from a small stream lying just to the south. This division of the total storage into two basins can be attained by constructing a reservoir embankment for the lower basin at "Line A," or at "Line B," and also building a dike along the Medina road and the Wheeling and Lake Erie Railway; and in making the computations a flow line at an elevation of 134 feet has been used, the tops of all embankments at the

lower dams being four feet higher than the flow-line used; the slopes to be three to one on the sides exposed to wave action, and two to one on all other sides.

In considering the question of reservoir embankments as set forth in the preliminary report of November 11, 1895, it is highly necessary to provide means to thoroughly cut-off the passage of water from the upper to the lower side of the embankment. This may be attained by core or cut-off wall of puddled clay or of masonry; and with thin embankments it will be necessary to carry this core wall up to the same level as the flow line of the reservoir, but with the embankments herein considered it is deemed unnecessary to construct this cut-off wall to a greater height than that slightly above the present surface of the valley, bearing in mind that the thickness of the reservoir embankment at the bottom of "Line A" is approximately 105 feet, and on "Line B" 195 feet; being ample provision against the passage of water through the embankment providing means are taken to thoroughly cut off any passage of water through the material on which the embankment rests. A section of these proposed embankments is shown in detail on Plat No. 5.

In the construction of these embankments the material should be taken from the inside of the basin, thus increasing the storage capacity, and when placed in the embankment should be a uniform mixture of gravel and clay placed in layers not exceeding six inches in thickness and rolled by means of grooved rollers.

The following statement shows the approximate cost of these reservoirs at the various localities:

#### FIRST.

Dam on the line of Old State Road known as "Line A." Elevation of flow line 134.

Top of bank 138.

Bank twenty feet wide on top.

Outside slopes two to one.

Inside slopes three to one.

Area of water surface, reservoir full, 190,000,000 gallons.

# APPROXIMATE COST.

127,000 cubic yards of embankment at 18 cents	\$22,860	00
Erie R. R., at 15 cents	4,650	00
1,000 cubic yards of masonry cut-off wall	5,000	00
Clearing and grubbing timber	500	00
One effluent chamber, supply and drain pipes	3,000	00
-		_
Total	<b>\$</b> 36.010	00

#### SECOND.

Lower dam on "Line B."
Flow line elevation 134.
Top of bank elevation 138.
Bank twenty feet wide on top.
Outside slopes two to one.
Inside slopes three to one.
Area of water surface, reservoir full, twenty-seven acres.
Approximate capacity of reservoir full, 145,000,000 gallons.

#### APPROXIMATE COST.

60,000 cubic yards of embankment at 18 cents	\$10,800	00
8,000 cubic yards of stripping at 15 cents	1,200	00
31,000 cubic yards of dike at 15 cents	4,650	00
Clearing and grubbing timber	500	00
750 cubic yards of masonry cut-off wall	3,750	00
One effluent chamber, supply and drain pipes	3,000	00
Total	\$23,900	00

#### THIRD.

Upper reservoir at "Station R-S."
Flow line elvation 155.
Top of bank elevation 160.
Slopes three to one each side.
Banks twenty feet wide on top.
Area of water surface, reservoir full, thirty acres.
Capacity of reservoir full, 118,000,000 gallons.

#### APPROXIMATE COST.

60,000 cubic yards of embankment at 18 cents	\$10,800	00
400 cubic yards of cut-off wall	2,000	00
Clearing and grubbing timber	500	00
Pipe connections to lower reservoir		00
8,500 cubic yards of excavation for overfall channel	1,275	00
Total	\$15,375	00

### FOURTH.

Land required—The amount of land required is approximately 106.37	
acres at \$120.00 per acre	\$12,764 00

#### FIFTH.

Supply lines to pumping station—
For reservoir located on "Line B" and pumping station at the site of the electric light plant, would require 7,300 feet of influent pipe.
For the reservoir located on "Line A" and with the same pumping station site requires 7,000 feet of influent pipe.

STATE BOARD OF HEALTH.	1	09
Or using a 16-inch influent pipe in place of the 20-inch, would result as		
the cost for the line with the reservoir located on "Line B"	13,200	00
And for the reservoir located on "Line A"	12,600	
Using these approximate estimates, the total cost of the supply at		
locations, would be as follows:		
······································		
FIRST ESTIMATE.		
Lower reservoir located on "Line A," and upper reservoir, locate	d on "Li	ne
R-S."		
Lower reservoir complete		
Upper reservoir complete	15,375	00
Land	12,764	00-
Supply line of 20-inch pipe	15,400	00
Addition to electric light building for pumping room	3,000	00
One new boiler, 66 inches by 16 feet	1,500	00
One new 3,000,000 gallon pumping engine	6,500	00
Removing and resetting 2,000,000 gallon pumping engine	1,000	00
Pump connections	1,000	00
Force main from pumping station to distribution	1,500	00
Stand pipe, metal work and land	12,000	00
Incidental expenses, engineering, printing and inspecting	3,400	00
Total estimated cost	\$109,449	00
SECOND ESTIMATE.		
The lower dam located on "Line R"	<b>8</b> 23,900	ОО-
Upper reservoir located on "Line R-S"	15,375	<b>00</b>
Land	12,764	00
Supply line to electric light station, 20-inch pipe	16,060	00
Addition to electric light station for pump room	3,000	00
One new boiler, 66 inches by 16 feet	1,500	00
One new 3,000,000 gallon pumping engine	6,500	00
Resetting present 2,000,000 gallon pumping engine	1,000	00
		00
Pump connections	1,000	
Force main connecting to distribution	1,000 1,500	00
Porce main connecting to distribution	•	
Force main connecting to distribution	1,500	00
Porce main connecting to distribution	1,500 12,000 3,400	00 00
Force main connecting to distribution	1,500 12,000 3,400	00 00
Force main connecting to distribution	1,500 12,000 3,400 \$ 97,999	00 00
Force main connecting to distribution	1,500 12,000 3,400 \$ 97,999	00 00
Force main connecting to distribution	1,500 12,000 3,400 \$ 97,999	00 00
Force main connecting to distribution	1,500 12,000 3,400 \$ 97,999	00
Force main connecting to distribution	1,500 12,000 3,400 \$ 97,999	00
Force main connecting to distribution	1,500 12,000 3,400 \$ 97,999	00

Using 16-inch effluent or supply main from the reservoir located on "Line B," to the pumping station would reduce the estimate of



#### FIFTH ESTIMATE.

Locating the pumping station at the reservoir site, and laying a 16-inch force
main in Woodlawn avenue to the intersection of Woodlawn avenue and Seminary
street:

Lower reservoir located on "Line A"	<b>\$</b> 36,010	00
Upper reservoir located on "Line R-S"		
Land	12,764	00
Pumping station at the reservoir	6,000	00
Force main to the distribution, 5,800 feet, 16-inch pipe	10,000	00
Two boilers, 66 inches by 16 feet	2.500	00
One 3,000,000 gallon pumping engine	6,500	00
Removing and resetting old 2,000,000 gallon pump	1,000	00
Suction connections	1,500	00
Stand pipe and foundation	11,000	00
Railway switch	500	00
Contingent expenses	5,400	
Total	\$106,549	

#### SIXTH ESTIMATE.

Locating the	pumping	station	at	the	reservoir,	pipe	16	inches	diameter	for
force main:										

force main:		
Lower reservoir on "Line B"	\$23,900	ου
Upper reservoir on "Line R-S,"	15,375	00
Land	12,764	00
Pumping station	6,000	00
16-inch force main	10,000	00
Two boilers	2,500	00
One 3,000,000 gallon pumping engine	6,500	00
Removing and resetting old pump	1,000	00
Suction connections.	1,500	00
Stand-pipe and foundation	11,000	00
Railway switch	500	00
Contingent expenses	3,400	00
To al	\$94,439	00

#### REMARKS.

While the above quantities and the prices used for the same are only approximate, yet it is believed the work can be completed on competitive bids for the various totals set forth in the above estimates.

# LOCATION OF STAND-PIPE.

With the pumping station located at the electric light works, a feasible location for the stand-pipe would be the vacant lot situated on the northerly side of Summit street, being so located would render the stand-pipe convenient to the pumping station, and in the estimates for the stand-pipe the price of a regulating valve has been included, by means of which water would be admitted to the stand-pipe until the pressure reached that equal to the top of the stand-pipe, at which time the valve

would automatically close, allowing the engineer to increase the pressure for fire purposes without mechanically cutting off the stand-pipe.

Again, should the works be located at the reservoir site, ample opportunity for a stand-pipe location exists either on the reservoir grounds or on the grounds adjoining Woodlawn avenue on the north, the same regulating valve being connected with the stand-pipe.

#### PUMPING STATION.

Regarding the location of the pumping station, estimates Nos. 1, 2, 3, and 4 contemplate building a pumping station either as a part of or in close proximity to the lighting station. Should the city contemplate the purchase of the lighting plant, it would be well to arrange the pumping station and steam plant so that both plants could in the future be operated by the same force of men, and in these estimates the amount named for the building has been based upon the supposition that desirable arrangements could be made with the electric light authorities, whereby the pumping station could be attached to their power house, and by the addition of a third boiler their steam plant furnish steam for not only the lighting plant, but also the pumping plant.

Should it be thought desirable to make this power plant entirely independent of the lighting plant, the further sum of \$4,000 should be added to each of estimates, Nos. 1, 2, 3 and 4.

# COMPARATIVE COST OF PUMPING BETWEEN THE SUPPLY LOCATED ON THE GIBSON FARM WITH THAT OF THE PRESENT LOCATION OF PUMPING STATION.

For the purpose of ascertaining the probable saving in the cost of fuel due to the decreased pressure against which the water must be pumped, the following computation has been made. Although not strictly accurate, it is probably a reasonable deduction as to what may be expected by the use of the same class of machinery in the two locations.

We find that in the year ending March 18, 1895, that 1,466,781 gallons of water per day were pumped from the present pumping station. To pump this water required approximately 950 tons of coal per year, or 5,200 pounds of coal per day. The total head pumped against was probably as follows: Static head due to elevation 100 feet; pressure head carried up town thirty-five pounds, equals eighty-one feet; friction loss through 4,000 feet of 10-inch pipe 30.2 feet; friction loss through 500 feet of 16-inch pipe 3.8 feet; probable total head pumped against 215 feet; making the total daily foot-pounds of work done the product of 1,466,781 times 8½ times 215, equals 2,628,143,875, with a consumption of coal of 5,200 pounds, or a duty of approximately 500,000 pounds of water lifted one foot high per pound of coal. This duty is undoubtedly in excess of that actually occurring, for the quantity of water pumped

per day is probably taken from plunger displacement multiplied by counter records, which is undoubtedly five to ten per cent in excess of the amount of water actually pumped.

Applying this duty to the supply as located on Norwalk Creek, we have the following computation: Maximum reservoir elevation, city base, 134; minimum reservoir elevation, city base, 106; mean elevation reservoir level, 120; friction loss, 1,500,000 gallons of water per day through 7,300 feet of 16-inch, 5 feet; net elevation of water at pumping station 115 feet, or fifteen feet above the street level at the court house. To reach an average pressure of thirty-five pounds at this point or eightyone feet, a net pressure must be had at the pumps of the difference between eighty-one feet and fifteen feet, or sixty-six feet, to which must be also added the loss by friction of water passing through the pumps, and the loss of 1,500,000 gallons of water through the force mains to the distribution at the court house. This distance from the pumping station located at the electric light works is approximately 650 feet of 16-inch pipe, and 1,600 feet of 10-inch pipe, which would call for a friction loss of 12 feet, or a total pressure to pump against of 66 plus 12, or 78 feet as against 215 feet present total lift, resulting in a saving of 137 feet head, which with the duty of 500,000 pounds lifted one foot high per pound of coal would result in a daily saving of coal of 3,350 pounds, or at \$2.00 per ton a saving of \$3.35 per day, or \$1,222.75 per year.

#### CONCLUSION.

I regard the plan of collecting the water in an upper basin and filling the lower basin from the upper as being extremely desirable, inasmuch as the water in the lower basin would at all times be free from sediment and be in the best possible condition for delivery into the distribution mains, and should result in a quality of water highly satisfactory for all purposes.

In the design of the upper reservoir it is contemplated to make an overflow channel 140 feet in width in order to pass all the flood waters after the two reservoirs are full. This channel would have a capacity far in excess of that necessary to pass all ordinary floods, but inasmuch as it is the extraordinary floods that an overflow channel must be proportioned for, a maximum discharge of 160 cubic feet per second per square mile has been adopted in proportioning the dimensions of this channel, and to provide for this maximum the water would be two feet deep through the spillway when passing water at the rate of 160 cubic feet per square mile per second, and will be abundantly safe in preventing the water reaching a dangerous height in the upper dam.

Again, on the dam located at "Line B," it would be well to grade down the hill side on the east side of the dam so as to provide a spillway of the above mentioned capacity to prevent the lower dam from being over-

topped by reason of an excess of discharge into it from the upper reservoir.

The following plats are herewith presented and made a part of this report: Plat No. 1 showing the rainfall at the Toledo station. Plat No. 2 showing the rainfall at the Sandusky station. Plat No. 3 showing the rainfall at the Cleveland station. Plat No. 4 showing the water-shed of Norwalk creek. Plat No. 5 showing the cross sections of the valley and the proposed location of the storage reservoirs. Plat No. 6 showing the proposed effluent or supply line from the lower reservoirs to the pumping station located at the electric light station. Plat No. 7 showing the proposed routes for the effluent or supply line to the electric light station, and also location of force main from the pumping station located at the reservoir site to the town distribution.

In conclusion, it is my judgment that the water shed of Norwalk creek with the amount of storage estimated in this report, will be sufficient to furnish the city of Norwalk with a daily supply of 8,000,000 gallons, and that the water will be equal in every respect to that of any public supply in the state of Ohio; and I have no hesitancy in advising the construction of the works at one or the other of the sites described in this report, but believe that site on "Line B" would, all things considered, be the best for the corporation, unless aid might be had from the county to pay for a portion of the fill on "Line A" from the Old State road sufficient to off-set the difference in the amount of embankment on this site over that on "Line B."

The construction of the work as outlined in the second, fourth and sixth estimates will leave sufficient money within your appropriation to increase and strengthen up your present pipe distribution.

I am under obligations to your city engineer, Mr. John Laylin, and civil engineer, Mr. E. A. Smith, for assistance rendered in making surveys and in the preparation of plats.

Respectfully submitted,

L. E. CHAPIN, Consulting Engineer.

# SANDUSKY, OHIO, STATION.

# Table No. 2.

# Total Precipitation in Inches for the Month of

Year.	January.	February.	March	April.	Мау.	June.	July.	August.	September.	October.	November.	December.	Total.
1877 1878 1879	8.39 1 19	3.06 2.46	5 33 1.95	2.32 1.74	2.96 1 16	2.61 5.97	4.85 4.01	6.28 1.59 8.26	0 78 6.76 5.77	4 89 3.72 0.69	3.41 2 88 5.22	1.58 8.44 4.29	42.91 37.71
1880 1881 1882 1883	3.77 1.31 2.46 1.01	2.11 3.25 3.79 4.12	2.66 2.75 4.02 0.69	4.67 2.47 2.75	4.49 0.98 7.11 p. clo	2.91 10.09 8.71	6.06 8.88 1.51	5.03 0.96 8.02 4.74	2.02 3.78 1.67 4.07	2.27 5.58 2.96	2.89 4.99 2.92 3.94	1.06 6.27 1.61	89.44 46.31 42.55
1884 1885 1886	1.25 3 29 2.28	5 48 0.83 1 12	3.26 0.75 2.38	1.50 2.19 2.35	3 70 4.35 3.69	2.42 6.61 2.16	5.75 3.08 2.26	2.48 3.87 3.78	3.17 1.82 3.83	1.18 1.18 2.92 1.24	1.01 2.75 2.94	2.61 2.44 1.77 2.97	38.64 34.23 31.00
1887 1888 1889 1890	1.51 2.14 2.43 8.49	8.53 1.26 1.27 8.10	2.16 2.85 2.23 2.18	2 10 1.61 1.45 8.68	1.61 2 30 4.52	4.44 3.96 2.29	0.59 3.58 0.98	1.07 1.98 1.25	2.31 1.41 1.84	0 88 1.89 1.27	2.25 2.35 1.71	1.90 1.12 3.65	29.85 26.45 24.89 40.60
1891 1892 1893	2.00 1.99 1.94	3.10 4 05 2.58 3.12	2.27 4.97 1.66	2.14 2.56 4.95	5 28 1.48 6.91 2.96	2.78 4.38 6.41 0.91	1.99 2.05 4.81 3.45	3.17 1.53 5.53 1.18	4.15 1.10 2.69 0.93	6.66 2.64 0.93 3.27	2.56 5.45 2.85 2.16	0.96 1.60 1.05 2.52	80.69 43.28 29.00
1894 1895 Av. 18 yrs	2 20	3.09	2.61	1.67  2.51	3.64	4.05	3.23	3.13	3.49 	2.82	2.95	2.99	28.06 35.91

The above table shows the precipitation at the U. S. weather bureau station at Sandusky since establishment of that station.

Ohio State Board of Health.

Office of the Secretary.

Columbus, January 31, 1896.

# MR. F. W. VAN DUSEN, Mayor, Norwalk, Ohio:

DEAR SIR: I herewith enclose a copy of report on proposed water supply for Norwalk, and beg to inform you that the proposed supply has been approved by the State Board of Health.

Yours truly,

C. O. PROBST.
Secretary.

# REPORT ON THE PROPOSED WATER SUPPLY FOR OXFORD.

To the State Board of Health.

GENTLEMEN:

The village of Oxford, Butler county, introduced water works without consulting the Board. On being notified that the Board's approval was required by law, application was duly made, and a committee visited Oxford, August 15, 1896.

The works are owned by the city, and water is being delivered to a small number of consumers. The supply is obtained from an infiltration well thirty feet in diameter and thirty-eight feet deep. The brick walls of the well are carried about 8 feet above ground. The well is located a mile or more east of the central part of the village, and about 75 feet east of Tallewanda Creek, a small stream of a fair degree of purity. This stream occasionally overflows and may reach the well, but would not enter it in any great amount.

The well is surrounded by farm land which approaches within perhaps a hundred feet of it. The water shed which contributes the ground water from which the well obtains its supply, is of considerable extent, and if the well does not afford a sufficient supply, this apparently, may easily be increased by other wells, or by filter galleries. The soil is loam with gravel and should yield its water easily. The water was not quite clear, but was unobjectionable to the taste.

There are no streams near Oxford which would afford a satisfactory supply, and the location determined upon for obtaining a ground water supply seems as favorable as any to be had.

The report of the chemist is appended hereto.

We recommend that the water supply proposed for the village of Oxford be approved. We think it desirable, however, that more land should be purchased in order to prevent possible pollution from the manuring of the farm land, which we consider too near, and in order to have control of additional supplies of water if the present well is found to be inadequate.

Respectfully,

BYRON STANTON, C. O. PROBST, Committee.

COLUMBUS, OHIO, August 27, 1896.

### DR. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: The sample of water received from Oxford has been submitted to a sanitary analysis by myself with the following results:

# Parts per 160,000.

Turbidity	none.
Sediment	none.
Color	.0
Oxygen required	.128
Free ammonia	.0038
Albuminoid ammonia	.0062
Nitrogen as nitrites	.0002
Nitrogen as nitrates	.0133
Chlorine	
Total solids	40.5
Temporary hardness	32.1
Permanent hardness.	

With the exception of the free ammonia which is a little higher than is usually found in a water of excellent quality, all the members indicating the presence of organic matter in this sample are so low that it must be regarded as a water of very fair quality. The mineral salts in the water are larger in amount than is quite desirable. A large portion of these are carbonates of lime and magnesia, constituting the temporary hardness of water and removed by boiling.

Yours truly,

CURTIS C. HOWARD.

OHIO STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,

COLUMBUS, September 11, 1896.

TO THE BOARD OF WATER WORKS TRUSTEES, Oxford, Ohio.

SIRS: The State Board of Health has considered your application for approval of a public water supply to be obtained from a well located a mile or more east of the central part of the village, and about seventy-five feet east of Tallewanda Creek; and you are hereby notified that the supply has been approved.

I enclose a copy of an analysis of the water.

Respectfully,

C. O. PROBST, Secretary.

# REPORT ON THE PROPOSED WATER SUPPLY FOR RIPLEY.

To the State Board of Health.

GENTLEMEN:

Having been appointed to make an inspection of a proposed water supply for the town or Ripley, Brown county, I visited that place May 8th and respectfully submit the following:

The town of Ripley is a place of about 3,000 inhabitants. The council proposed to construct water works, the supply to be pumped from the Ohio river into two settling reservoirs of 500,000 gallons each, to be lined with brick and to be concreted. These settling basins will be near the river, from which the water is to be pumped alternately into a distributing reservoir on the hill back of the town. The pumping capacity of the pumps is to be 500,000 gallons in twenty-four hours so that either reservoir can be filled in three working days of eight hours each. In this way more than three weeks time will be allowed for sedimentation with the water in a quiescent state before using any of it, as the capacity of each reservoir is equal to about four weeks supply. No other system of purification is contemplated at present.

The nearest town of any size on the Ohio river side is Portsmouth, about fifty miles above. Marysville, Ky., is eight miles above.

Believing that sedimentation for the time allowed will make the water of the Ohio river much better than the well water of Ripley, I have no hesitation in recommending the approval of the plans and location proposed by Mr. Layman, and approved and accepted by the council of Ripley. The application of the authorities and the plans drawn by the engineer accompany the report.

Respectfully,

Byron Stanton, Committee.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, June 19, 1896.

MR. E. F. LAYMAN, Consulting Engineer, 32 E. Third Street, Cincinnati, O.

DEAR SIR: The State Board of Health has considered your application for approval of a public water supply for the village of Ripley, to be obtained in the manner set forth in the report submitted to the Board by Dr. Byron Stanton, a copy of which is enclosed, and you are hereby 'notified that such supply has been approved.

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON THE PROPOSED WATER SUPPLY FOR ROCKFORD.

To the State Board of Health.

GENTLEMEN:

Rockford is a pleasant village of about 1200 inhabitants, situated on the south bank of the St. Marys river. The trustees, Messrs. J. W. Smith, D. H. Robison and W. T. Barbour, have drilled a well southwest of the village to a depth of 145 feet where a large vein of water was struck. The well is drilled through clay, quicksand and gravel. I was unable to get the exact strata and the depth of each that was passed through. It is cased the 145 feet with six inch casing. The slope of the land is to the north and east, away from the well, so there is no danger of pollution from the drainage of the village, and the surroundings are such that there is no danger of surface contamination.

The exact capacity is not known, but a test was made with a steam pump and they were able to raise 45,000 gallons in twenty-four hours, the full capacity of the pump, but it did not exhaust or lessen the supply.



At the time of my visit, !August 4, there was no pump in the well. A small hand pump was secured and we were able to get a sample after pumping the well for some time. The water is clear and pleasant. It is hard, but not as hard as the shallower wells in the vicinity, and not too hard for a potable water.

I do not hesitate to recommend the approval of the source of supply, and believe it will be eminently satisfactory.

Respectfully,

R. D. KAHLE, Committee.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, August 25, 1896.

MR. J. W. SMITH, Secretary of the Water Works Trustees, Rockford, Ohio.

DEAR SIR: The State Board of Health has caused an examination to be made of the proposed water supply for your village, and you are hereby notified that said supply is approved.

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON THE PROPOSED WATER SUPPLY FOR ST. MARYS.

To the State Board of Health.

GENTLEMEN:

St. Marys, a city of about 4,500 inhabitants, in Auglaize county, proposes to get its water supply from deep wells. These four wells are located in the city limits and about 1,400 feet from the main street. They are 280 feet deep and 8 inches in diameter. These are artesian wells with a strong flow and since they have been drilled, some artesian wells about two miles south and east of town have ceased to flow, showing that the water supply comes from some great distance.

The following is a copy of an analysis shown me by Mr. O. E. Dunan, president of the trustees, and made for the civil engineer:

CINCINNATI, O., October 23, 1896.

The following is a statement of the results of an examination of well water from St. Marys, in parts per 100.000:

Total solids	64.0
Chlorine	1.05
Free ammonia	0.037
Albuminoid ammonia	0.003
Nitrites	0.00

Nitrates	0.00
Temporary hardness in terms of calcium carbonates	31.5
Permanent hardness	5.0
Iron as ferrous carbonate	.85
Pospostfully submitted	

Respectfully submitted.

W. SIMONSON.

The analysis shows this to be a good water. The capacity of these wells is estimated at one and one-half million gallons per day, and the estimated cost of the plant is \$60,000. The plant is owned by the city. These wells are located between the St. Marys river and a race but no connection is to be made to either.

I recommend the approval of this source of supply.

Respectfully,

R. D. KAHLE, Committee.

# REPORT ON AN INVESTIGATION OF WATER SUPPLY FOR SIDNEY.

To the State Board of Health.
Gentlemen:

In 1873 Sidney introduced a public water supply getting the water from Mosquito creek, a small stream near by. In 1880 the source of the supply was changed to the Miami river which runs through the city. This source has been used since that time and it is at times quite impure, and at all times a questionable supply. It is pumped through a tank sand filter which does not benefit the water but probably has the effect of allaying their fears as to the impurities therein. However, the secretary, Mr. McCune, informs me that few families use it for other than sanitary purposes. The present Board of Water Works Trustees, Messrs, R. O. Bingham, W. A. Graham and E. F. Lierman, drilled a well a few feet from the pump station and struck a large vein of water. When your committee visited Sidney on January 20, it was flowing about an inch and a half stream through a hole in the cap of the casing from fifteen to twenty feet high, showing there was considerable pressure behind it. The cap was removed from the casing and a very strong flow was permitted from the well. This well is drilled through thirtyfive feet of gravel and eighty-five feet of limestone to a depth of onehundred and twenty feet. No water is reached after striking the rock until this vein is struck. It is eased to the rock. The following is a sanitary analysis of the water:

COLUMBUS, O, January 25, 1896.

## DR. C. O. PROBST, Secretary State Board of Health:

DEAR SIR: The sample of water sent by Dr. Kahle from Sidney and received January 21, has been examined by myself with the following results:

# Parts per 100.000.

Oxygen required	.100
Free ammonia	.0562
Albuminoid ammonia	.0038
Nitrogen of nitrites	.0000
Nitrogen of nitrates	.0033
Chlorine	.322
Total solids.	54.1
Turbidity	none.
Sediment	none.
Color	.0
Permanent Hardness	5.4
Temporary hardness	40.8

This water presents the characteristics of a deep well water, the free ammonia quite high, but with all other constituents indicating organic impurity so low that this is undoubtedly derived from the reduction of nitrates and hence entirely without significance. This is confirmed by the trace of nitrates while the albuminoid ammonia is at about the minimum quantity. The chlorine is so low that unlike some deep well waters it is not a salt water. The total solids are rather high, the hardness is also higher than is desirable, but fortunately, a large part of it is temporary and hence easily removed by boiling.

Yours truly,

CURTIS C. HOWARD.

This shows it to have a temporary hardness of 23.8 grains per U. S. gallon, and a permanent hardness of 3.1 grains per gallon. It will be seen that this water is softened very much by boiling, and as a sanitary water it is good. The temperature of the water at the well is fifty-two degrees. I therefore recommend the approval of this source of supply, and also recommend that all connections be cut off from the river except in case of emergency. It is proposed by the trustees to drill five wells. The estimated capacity of the present well is 250,000 gallons per day. Sidney has a population of about 7,000 and I believe these wells will yield then an abundant supply for all purposes.

Respectfully,

R. D. KAHLE, Committee.



OHIO STATE BOARD OF HEALTH.

OFFICE OF THE SECRETARY,

COLUMBUS, January 31, 1896.

MR. W. A. GRAHAM, Member Board of Water Works Trustees, Sidney, Ohio:

DEAR SIR: I enclose herewith a copy of a report on water supply proposed for Sidney, and beg to notify you that the proposed supply has been duly approved by the State Board of Health.

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON PROPOSED WATER SUPPLY FOR TIPPE-CANOE CITY.

To the State Board of Health.

GENTLEMEN:

By direction of the President I went to Tippecanoe City August 28, to make an inspection of a proposed source of water supply. The well from which it is proposed to obtain the water is two hundred and fifty feet east of the canal that skirts Tippecanoe City on the east, and is about a quarter of a mile from the Miami river at its nearest point. The best well is six inches in diameter and is cased to a depth of forty feet. It passes through ten feet of yellow clay, five feet of gravelly clay, ten feet of blue clay, two feet of hard-pan, then through fifteen feet of gravel to solid rock, but the pipe was drawn two feet to permit the more ready entrance of water. The top of the well is somewhat lower than the general surface of the town and is between the town and the river, but the bottom of the well is considerably below the bed of the river.

The location of the well might be thought objectionable but the stratum of hard-pan through which it is sunk is undoubtedly an extensive one, a number of deep wells in different parts of the town having struck hard-pan at about the same level as the stratum through which the test well is sunk.

Efforts have been made to find a supply of water by sinking wells on the higher ground south and west of the town, but so far without success.

My impression is that there can be no danger of contamination from local sources. This opinion seems to be confirmed by the report of Prof. Howard's analysis, a copy of which accompanies this. I have, therefore, no hesitation in recommending the approval of the proposed source of water supply.

Respectfully,

Byron Stanton, Committee.

COLUMBUS, O., August 31, 1896.

DR. BYRON STANTON, Cincinnati, Ohio:

DHAR SIR: The sample of water sent by yourself from Tippecanoe City has been submitted to a sanitary analysis by myself with the following results:

## Parts per 100.000.

Turbidity	none.
Sediment	very slight.
Color	
Oxygen required	
Free ammonia	
Albuminoid ammonia	
Nitrogen as nitrites	
Nitrogen as nitrates	0033
Chlorine	5.17
Total solids	74.8
Temporary hardness	<b>.56</b> .8
Permanent hardness	9.2

The amount of oxidizable matter in this water, together with the nitrogen as nitrates and nitrites and albuminoid ammonia, is so small as to show almost the minimum quantity of organic matter, and the fact that the water is from a well of considerable depth in connection with the preceding fact, shows conclusively that the somewhat large amount of free ammonia is not derived from the recent decomposition of organic matter. The high chlorine in a deep well water containing a large amount of mineral matter may be pronounced to be without significance. The water is a very hard one, and the hardness is largely temporary in character and hence removable by boiling. A study of the carefully made sanitary survey of Dr. Stanton is of value in arriving at the conclusion that the water at present is an uncontaminated one, the chief objection to which lies in its extreme hardness.

Yours truly,

CURTIS C. HOWARD.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, September 11, 1896.

MR. JOHN M. HAAGA, Corporation Clerk, Tippecanoe City, Ohio.

DRAR SIR: The State Board of Health has considered your application for approval of a public water supply to be obtained from a well two hundred and fifty feet east of the canal and about a quarter of a mile from the Miami River at its nearest point; and you are hereby notified that the supply has been approved.

I enclose a copy of an analysis of the water.

Respectfully,

C. O. PROBST, Secretary



# REPORT ON ADDITIONAL WATER SUPPLIES FOR XENIA.

To the State Board of Health.

GENTLEMEN:

Your committee begs to submit the following report on additional water supplies for Xenia, with the recommendation that these supplies be disapproved, except on conditions named herein.

In 1887 the city of Xenia contracted with a company to furnish water for fire and domestic purposes. A twenty-five years' franchise was granted to the company, the city having the privilege of purchasing the works at the end of ten years. Water at first was taken from springs, located about one and one-half miles west of the city. The water was collected in a shallow reservoir or basin, with earth sides and bottom.

The quality of this supply appears to have been fair, except for the luxuriant growth of algæ in warm weather. A few years after the introduction of this supply, the reservoir was enlarged, and a dividing wall of stones and gravel, six or eight feet wide at the top, was placed in it. An iron pipe, controlled by a valve on the dividing wall, connects the two reservoirs. Each reservoir is also directly connected with the pumps.

It is claimed that only water from the east reservoir is pumped to consumers, except in case of fire, the west reservoir being held solely for such an emergency. The east reservoir, it is stated, has been, until recently, supplied solely by springs, an encircling carrier ditch cutting off all surface water. The west reservoir is filled by pumping from a well house, which receives water from an old mill-race fed by Oldtown creek. Also water from the same source used for the steam condensers, and surface water from adjacent land.

Still another source of supply has been recently added, and requires approval of this Board. This comes partly from some springs at the foot of hills about 1,000 feet from the reservoir, being conducted to the well house spoken of by porous tile, the joints of which are not cemented. This line of tile passes through swamp land, which undoubtedly contributes a part of the supply.

Oldtown creek is a small stream flowing through this same swamp, and through pastures containing many cattle. There is also a large dairy on the banks of the stream less than two miles above the reservoirs. The water of this creek is totally unfit for drinking purposes, without proper purification. All the water in the creek was flowing through the old mill race. Very little water was flowing in the race below the pump well, so that practically all of Oldtown creek was being pumped into the west reservoir, except as hereafter noted.

The water in the two reservoirs appeared to be at the same level. The waters differ in appearance, that in the east reservoir being clear, while that in the west reservoir was turbid. The water doubtless passes

freely from the west to the east reservoir through the dividing wall, which would remove much of the suspended matter without purifying the water to any great extent, from a sanitary standpoint.

Another source of supply remains to be mentioned, and one which the Board is asked to approve. What is called a well has been dug a short distance from the pump well spoken of. This well is more in the nature of a reservoir, being about twenty-two feet deep, and thirty-five to forty feet wide and sixty to seventy feet long at the top. The sides are sloping and are lined with rubble work. Some springs at the bottom of this well or reservoir, form part of the supply, but a considerable stream of water was flowing into it which was said to come from the springs which have been spoken of as being connected with the open jointed tile drain. It was found that most of this water was in fact coming from Oldtown creek, and by a very ingenious arrangement.

The open jointed drain tile coming from the springs discharges into a small well hole, a few hundred feet east of the pump well which gets water from the mill race. One pipe leads from this small well hole to the pump well and another from the well hole to the new large well, or reservoir, just described. The pipe line from the well hole to the pump well is so nearly on a level, that a few inches of head will enable water to flow through it in either direction. Water would flow from the mill race into the pump well, and when the pumps were not going would flow into the well hole, and from there into the new reservoir. By stopping the well from the well hole to the new reservoir, water from springs, reaching the well hole by the tile drain, will flow to the pump well when the water is lowered in it by pumping. Or, by stopping the pipe connecting the well hole and pump well, the spring water will flow into the new reservoir.

Very little water was coming from the springs, and the new reservoir was being filled by water from the mill race in the roundabout way described. Water from the reservoir, or well as it is called, is pumped to the east reservoir, the one supplying water to consumers.

A well 150 feet deep, was drilled near the new reservoir, but very little water was found. Another well is being drilled in a new locality, but is not yet ready for inspection.

September 16, 1895, one of us (Dr. Stanton) visited Xenia and while there collected a sample of water from the pump well and another from a hydrant connected with the main pipe to the city. These were submitted to Prof. C. C. Howard for examination, who reported as follows:

September 23, 1895.

DR. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: The two samples of water received from Xenia have been submitted to a sanitary analysis by myself with the following results:



(ITX))

(4777-1177

# Parts per 100.000.

"Well"	"H"
None.	None.
Considerable.	Slight
.2	.0
.248	.120
.0732	.0122
.0184	.0096
.0015	.0015
.1480	.2180
13.5	.27
55.1	36.0
27.5	30.8
2.1	3.1
	None. Considerable. .2 .248 .0732 .0184 .0015 .1480 13.5 55.1 27.5

Full information as to the source of these waters is desirable before interpreting these figures, "H" might be accepted though doubtful in some respects, but the evidences of contamination in "Well" are so direct that it must be regarded as a bad water.

Yours truly,

CURTIS C. HOWARD.

During our recent visit a sample of water was taken from the new well or reservoir. Prof. Howard reports on this sample as follows:

November 11, 1896.

# DR. C. O. PROBST, Secretary of the State Board of Health:

DEAR SIR: The sample of water received from Xenia November 8th has been submitted to a sanitary analysis by myself with the following results:

# Parts per 100.000.

Appearance—	
Turbidity	Very slight
Sediment	Slight.
Color	.1
Oxygen required	.344
Free ammonia	.0110
Albuminoid ammonia	.0192
Nitrogen as nitrites	.0033
Nitrogen as nitrates	.1125
Chlorine	.126
Total solids	35.6
Temporary hardness	29.6
Permanent hardness	4.1

The first five numbers as representing the oxygen required to oxidize organic matter and the nitrogen as a particular constituent of animal matter in its various forms of combination are all so high as to be inconsistent with even a fair degree of organic purity. The source and history of this sample are entirely unknown to me but the assertion may be ventured that diligent search will show the cause for these

high figures for nitrogenous matter. The chlorine is so low as to exclude contamination from vault contents. The water is not particularly hard as well waters go and a considerable proportion of the hardness is temporary, that is, removable by boiling.

Yours truly,

CURTIS C. HOWARD.

The superintendent of the Xenia Water Company, Mr. G. F. Cooper, in a letter to Dr. Stanton, under date of November 9th, admits that water was being used from the race way when we were there, and that some water from the same source had been taken at various times before.

It is in our opinion, a bad arrangement to have a supply of water for emergencies (fire purposes) which it would be dangerous to drink. First, because in case of shortage of good water bad water is liable to be used to make up the deficiency; and second, because when fires occur consumers have no choice but to drink polluted water.

We have the following recommendations to make:

- 1st. That the proposed additional supplies (springs and new well or reservoir) be disapproved unless all connections for Oldtown creek water either for domestic or fire purposes—are cut off and it be made impossible to use this supply.
- 2d. That the open jointed porous drain tile now used for conveying water from the springs be replaced by a water tight conduit, either iron or vitrified pipe with cemented joints carefully laid to prevent settling and breaking of joints.

We would suggest that there would be many advantages to the citizens of Xenia in owning the water works; and that it will probably be found necessary to seek an entirely new source of water supply in the near future.

A copy of this report was sent to the Water Works Board of Xenia and following that a number of driven wells were put down for increasing the water supply. Dr. Stanton inspected these wells and reported as follows:

Having been appointed to inspect a number of driven wells in the vicinity of Xenia that are proposed as sources of water supply for that city, I would respectfully report that I visited that place on March 14th and first inspected a well near the corporation line and fifty feet east of the Little Miami railroad and about one thousand feet south of the depot. The well is forty-five deep and passes through a stratum of clay soil five feet deep, then a stratum of gravel four feet thick, a stratum of clay two feet, gravel three feet, clay six feet and then a stratum of water-bearing gravel.

The surface of the ground at the well is lower than the higher parts of Xenia, but higher than the stream running through the city near the depot. There are no houses near the well. There is a slaughter-house about 700 or 800 feet south of the well, but it is on lower ground and the

water from it runs into a ravine which runs in an opposite direction from the well. This well I have designated as "Well A." and an analysis of the water accompanies this report.

Another well, designated by me as "Well D,", is in the basement of the Oldtown mill, three and a half miles north of Xenia. It is but thirteen feet deep from the cellar bottom, is between the race which supplies the mill with water from the Little Miami river and Massie's creek—twenty feet from the former and about one hundred and sixty feet from the latter. The water comes from a stratum of gravel five feet deeper than the bottom of the race. This well has been in use a number of years and it is believed an abundant supply of water can be had at this point.

Two other wells were visited by me about half a mile from Oldtown mill. They are in a swampy flat about a quarter of a mile wide extending along the Little Miami river for three or four miles. One was a well driven to a depth of one hundred and fifty feet through strata of alluvial soil, coarse gravel, sand, clay, and hardpan, but at the time of driving the well they were unable to get the water to the surface by means of the appliances at hand and it was soon after filled up with stones and sticks by some evil disposed person and had been abandoned.

The next well was in swampy ground and was but twelve feet deep. The water had a bad taste and I did not think it worth while to have it analyzed.

As the chemical analysis of the water from "Well A" and "Well D," reports of which accompany this, show them to be satisfactory waters, I would recommend the approval of these sources of supply for Xenia.

Respectfully,

Byron Stanton, C. O. Probst, Committee.

COLUMBUS, March 18, 1896.

### DR. C. O. PROBST, Secretary of State Board of Health:

DEAR SIR: The two samples of water forwarded from Xenia by Dr. Stanton have been submitted to a chemical analysis by myself with the following results:

### Parts per 100.000.

	"A"	"D"
Appearance—		
Turbidity	None.	None.
Sediment	None.	None.
Color	.0	.0
Oxygen required	.092	.128
Free ammonia	.0014	.0018
Albuminoid ammonia		.0090
Nitrogen as nitrates	.0000	.0000
Chloriue		.22
Total Solids	42.1	34.0
Temporary hardness	26.5	24.4
Permanent hardness		4.9

The above results show that each of these samples represent waters of a rather high degree of organic purity, of much better quality than each of the three samples previously submitted. "A" is somewhat the harder of the two, and the increased hardness is largely permanent in character, as the temporary hardness is about equal. "A" is slightly the purer of the two, but both are very satisfactory.

Yours respectfully,

CURTIS C. HOWARD,

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, March 27, 1896.

MR. GEORGE F. COOPER, Superintendent Xenia Water Works, Xenia, O.

DEAR SIR:—The State Board of Health has considered your application to approve of an additional water supply for the city of Xenia, to be obtained from wells, one located fifty feet east of the Little Miami railroad and one thousand feet south of the depot, the other in the basement of Oldtown mill; and you are hereby notified that said additional water supply has been approved.

I enclose a copy of the chemist's report.

Yours truly,

C. O. PROBST, Secretary.

# Sewerage Sytems and Disposal Works.

# INSPECTION OF SEWERAGE SYSTEM OF BRYAN.

To the State Board of Health.

GENTLEMEN:

Numerous letters of complaint with reference to the sewerage system of Bryan were received during October and November, and finally a request from the council that I should come there and inspect their sewers and advise them as to steps to be taken to remedy certain evils that had arisen. I went there November 21, and in company with the mayor went over their sewer routes and inspected their outlets.

Bryan is suffering from the same condition of affairs met with in many Ohio towns. Sewers for storm water and cellar drainage have been constructed from time to time along various streets. These are simply tile drains, uncemented and of small diameter, the largest being twelve inches. A number of laterals are but eight inches. The town lies quite flat and many of the drains could be given but slight fall, so that their carrying capacity is comparatively small. The result is that in heavy rain storms some of these sewers overflow into the cellars with which they are connected.

A few years ago the practice of connecting cess-pools with the sewers was inaugurated; and later, direct connections of water closets were made. Water works were introduced not long since, and the better class of houses being built are adding the modern conveniences of bath, kitchen sinks, closets, etc., which are discharged into the sewers. Two hotels, well patronized, discharge their liquid wastes into cess-pools which overflow into the sewers. Complaint was then made by those having cellars subject to overflow.

About three-fourths of the sewage enters Lynn run, a small stream passing through the town. This run also receives sewage from the court house, which has a sewer of its own. The balance of the sewage enters a small open ditch within corporation limits, which empties into a county ditch.

Lynn run has been the cause of complaint for several years although the sewers and the run had been well flushed a few days before I saw it; it was still badly polluted by sewage. The odor at many places was marked

and the appearance of the run decidedly bad. The open ditch receiving sewage was also in a bad condition.

Another cause for complaint is the catch basins. These are untrapped, and as the sewers are not ventilated, having no opening except at the catch basins, and into some cellars, the foul gases come out at street corners and are a source of much annoyance. As stated, some of the cellars have openings into the sewer; that is have cellar drains which are untrapped. Offensive gases therefore often escape into the houses.

Matters recently reached a climax on account of several large cesspools having been connected with the sewers, and a conflict arose between those opposed to such use of the sewers and those already enjoying such privilege.

I met the council and the leaders of the opposing factions, in the mayor's office, where the situation was freely discussed. I opposed the use of the present sewers for any purposes except storm water and cellar drainage, and pointed out the dangers of permitting cess-pools and water closets to drain into them. In reply to a direct question as to what action council should take, I recommended that an ordinance be passed directing property holders to cut off all connection with the sewers except for cellar drainage, and to prohibit their use for any other purposes except storm water. The question of a proper system of purely sanitary sewers, and the disposal of sewage, which will be required there was discussed, and the council was urged to provide for such a system as the only solution of the problem which confronts them. I was informed that the county surveyor had already been engaged to prepare plans for a sewerage system, but had not yet made a report.

Respectfully,

C. O. Probst, Secretary.

# REPORT ON PROPOSED SEWERAGE SYSTEM FOR CHILLICOTHE.

To the State Board of Health.

GENTLEMEN:

On December 5th by invitation of council, I visited Chillicothe to consult with the members of the committee on sewerage in regard to a sewerage system for that city. Chillicothe has had water works since 1887, but is entirely without sewerage, privy vaults and cess-pools being universally used. It is proposed to adopt a separate system of sewerage calculated to serve the whole city, but to build only a part of it at the present time. The main question is where to secure an outlet. It is proposed, if the State Board of Health will consent, that this shall be at



the foot of Hickory street. This is just above the Scioto Valley railroad bridge over the Scioto river and is near the middle of the city. There are very few houses, however, on the river bank below this point. Just below the bridge there is constantly a large body of water, never less than nine or ten feet deep, and extending down the river for more than a mile. It is proposed to conduct the sewage in an iron pipe below the bridge and discharge it into the river by means of a submerged outlet. Near the foot of Hickory street is an island of sand and gravel which is possibly large enough to filter the sewage. The district is subject to overflow and could not be depended on for this purpose at all seasons. If this outlet can not be used it will be necessary to construct a trunk sewer about two miles in length, which would discharge into the river below the city. This would greatly increase the expense, and it is urged would likely defeat a proposition for sewerage.

I stated to the committee that it was possible the Board might approve of a temporary outlet at Hickory street, if it were agreed to discharge the sewage at some more favorable point within a definite period. I advised them to secure the services of a competent sanitary engineer, and have him prepare plans to be submitted to the Board at its meeting January 29.

At a meeting of the Board held January 30, the following petition was presented by a committee from Chillicothe.

CHILLICOTHE, O., January 30, 1896.

To the Honorable, the Members of the State Board of Health:

GENTLEMEN: The undersigned, members of a special sanitary committee, of the city council, of the city of Chillicothe, Ohio, to whom has been referred the matter of the construction of a system of sanitary sewers for the city of Chillicothe, Ohio, respectfully represent to your honorable body the following:

Said city of Chillicothe, Ohio, has a population estimated at about 15,000 inhabitants; the city council of said city contemplates the construction of a system of sanitary sewers by dividing said city into sewer districts and sewering such districts, from time to time, as the needs and wants of the people may require.

Submitted herewith you will find a complete map of the city of Chillicothe, Ohio, showing the several streets, alleys, public grounds, etc., of said city; also the elevations or grade lines of the several portions of said city; that portion of the city which the city council at this time contemplates sewering, is indicated by the red lines on said city map and is intended to be Sewer District No. 1, and will be constructed on the following streets, to-wit: West second street, 800 ft.; Paint street 1,300 ft.; North Market street, 100 ft.; East Second street, 600 ft.; Mulberry street, 450 ft.; Main street, 2,200 ft.; Hickory street, 2,000 ft.; in all 7,950 ft., or 1½ miles.

After a careful investigation and mature consideration, the committee has decided that in the interest of health and economy, the most practical outlet for said sewer system, would be into the Scioto river about 600 feet east of Hickory street through a submerged pipe.

The river at this point is very deep and wide, and during the entire year has a strong current; at no season of the year is there less than from fifteen to twenty feet of water at this point, as well as also for a distance of half a mile east of the same, and west of this point is a riffle with a heavy fall and strong current.

red by GOOGIE

East of the point above indicated, and where said city council is desirous of emptying its sewage, there is scarcely a habitation and there are no persons living on or near the banks of said river who might or could consider the same a nuisance.

The Scioto river empties into the Ohio river at a point about fifty miles south of Chillicothe, and there is no city or village located on said river, which might in the future, desire to secure its water supply from said river.

Wherefore, the undersigned committee, representing said city, prays your honorable body, that it may be permitted to empty its sewage into the Scioto river at a point 600 feet east of Hickory street, through a submerged pipe, as indicated on the map herewith submitted.

Respectfully submitted,

EDW. KERN, Chairman.
W. A. TSCHUNNY,
H. W. CHAPMAN,
ST. BURKLEY,
C. E. TIPPETTS,
Special Committee on Sanitary Sewers.
H. M. REDD, City Engineer.
EDW. U. WIEDLER, City Solicitor.

Mr. Hartzell presented the following resolution which was adopted: The outlet as proposed is not approved for the following reasons:

- 1st. The outlet is in too near proximity to the inhabited portions of the city.
- 2d. No properly drawn plan of the proposed sewer system has been presented to the Board.
  - 3d. No plans have been made for the purification of the sewage.

    Respectfully,

C. O. PROBST, Secretary.

# REPORT ON THE CHANGE IN THE SEWERAGE SYSTEM OF CLEVELAND.

To the State Board of Health.

GENTLEMEN:

At the April meeting of the State Board of Health Mr. D. E. Wright, Director of Public Works, and Mr. C. G. Force, City Engineer, of Cleveland, appeared before the Board with plans for a sewerage system for District No. 13, formerly a separate corporation known as West Cleveland. They presented a statement to the Board with reference to the proposed sewerage system.

The action of the Board with reference to this request for approval, and the statement as presented, are as follows:

CINCINNATI, April 22, 1896.

To the State Board of Health:

GENTLEMEN: The city of Cleveland desires to at once construct a system of sewers for what is known as Sewer District No. 13 (formerly called West Cleveland) substantially in accordance with the general outlined plan herewith submitted.

The principal main sewers and intercepters are as follows: A main sewer in Lake avenue, from Highland avenue easterly to the Lake Shore and Michigan Southern Railway; a main sewer along said railway easterly to Lake avenue with other mains and sub-mains and laterals connecting therewith. Also an intercepting sewer along said railway from Lake avenue easterly to Waverly avenue at a point near Cass street, there to connect with the intercepting sewer when built easterly to the final outfall to the eastward of the city as recommended by the Commission of Expert Engineers a copy of their report being also submitted.

There will be an overflow at Waverly avenue at which point the sewage will also be discharged into Lake Erie until the main intercepter is constructed. (The Waverly avenue sewer now discharges at this point.) There will be a storm overflow at the intersection of Lake avenue and the Lake Shore and Michigan Southern Railway, also at what is known as Lower run at Edgewater avenue at its intersections with Lake avenue.

It is also desired to at once begin the construction of the main intercepting sewer, at the easterly end, as recommended by the expert commission; also a sewer in Doan street with an overflow in Doan brook at Wade park and with an overflow into Lake Erie. The sewage and dry weather flow from said Doan street sewer to be discharged into the main intercepter when the same is constructed as far as Doan street.

We also desire to construct a sewer in Walworth Run Valley, the sewage and dry weather flow from which is to be discharged into the branch intercepter near Rhodes avenue, when the same is constructed as far as Rhodes avenue, as recommended by expert said commission, and to overflow into Cuyahoga river only after the intercepters and low level system of sewers, as recommended by the experts, have been constructed.

Respectfully submitted,

(signed) D. E. WRIGHT,
Director of Public Works.

OHIO STATE BOARD OF HEALTH.
OFFICE OF THE SECRETARY,
COLUMBUS, April 30, 1896.

MR. D. E. WRIGHT, Director of Public Works, Cleveland, Ohio.

SIR: The State Board of Health has considered your application for approval of certain changes in the sewerage system of the city of Cleveland, as set forth in the statement prepared by you, which is given above, and you are hereby notified that said proposed changes have been duly approved by this Board.

Respectfully,

C. O. Probst, Secretary.

At a meeting of the State Board of Health held in Cleveland June 18, 1896, a protest filed by the park commissioners of Cleveland against permitting the discharge of storm overflows from the Doan street sewer into Doan brook was heard. After investigation the Board's action in

approving proposed changes in the sewerage system of Cleveland was amended as indicated in the following communication:

OHIO STATE BOARD OF HEALTH.
OFFICE OF THE SECRETARY,
COLUMBUS, June 20, 1896.

MR. D. E. WRIGHT, Director of Public Works, Cleveland, Ohio:

DEAR SIR: At a meeting of the State Board of Health held in Cleveland June 18, 1896, it was voted to reconsider the vote approving changes in the sewerage system of the city of Cleveland, as presented to said board April 22d, 1896. It was then voted to approve of plans for changes in the sewerage system of the city of Cleveland, Ohio, as presented to the State Board of Health April 22, 1896, except in so far as they applied to the Doan street sewer.

The following resolution was then adopted:

Resolved, That after further investigation it is the opinion of this Board that the proposed plan for storm overflows from Doan street sewer into Doan brook at Wade park or elsewhere should not be permitted if preventable. Be it further

Resloved, That storm water, where avoidable, should not be carried in sewers; and the authorities of Cleveland are respectfully recommended to use every endeavor to adopt the separate system for the Doan brook district.

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON SEWAGE DISPOSAL FOR THE OHIO STATE REFORMATORY AT MANSFIELD.

To the State Board of Health.

GENTLEMEN:

The Board of Managers of the Ohio State Reformatory have made application for approval of a proposed plan for sewage disposal.

On June 29, I visited the institution and examined the plans and grounds provided for sewage disposal.

The Board of Managers appointed a committee to investigate the question of sewage disposal, and this committee, after a visit to Massachusetts and other New England states, brought in a report enthusiastically recommending the intermittent filtration of sewage.

Mr. John P. Force, of Fostoria, was engaged as consulting engineer and he has prepared plans for disposing of the sewage in the way proposed by the committee. It is proposed to collect all of the sewage—excluding roof water and surface drainage—into a fifteen-inch outfall sewer, which will conduct the sewage to lands about 900 feet from the institution and fifty-five feet below basement level. At this point two filtration beds one acre in area will be built—gravel of excellent character for filtration of sewage being found in the immediate vicinity—which beds will have five feet of gravel laid on clay, and be properly underdrained. The effluent will discharge into Fork creek, a small stream fed

by springs and which always maintains a flow of water. Neither this creek nor the larger creek into which it empties is used for a water supply. The plans provide for a screen chamber which will receive more or less sludge. This sludge will be carried to a specially prepared bed where it is designed to have it regularly plowed under. The land adjoining the filter beds is now cultivated and is arranged so that the sewage may be used for irrigation whenever this is desired. The proposed filter beds are over 900 feet from the institution, and are more than that distance from any other habitation.

The managers of the Ohio State Reformatory, in my judgment, are especially to be commended for providing for the disposal of the sewage of that institution. The plan proposed is, undoubtedly, the most satisfactory that could be adopted; and the location of the filter beds, and their proposed arrangement is all that could be desired.

I should say that arrangments have been made to care for roof and surface water by a separate system of sewerage and the filter beds will have nothing but household wastes to care for.

I unhesitatingly recommend that the proposed plans for the disposal of sewage from the Ohio State Reformatory be approved.

Respectfully,

C. O. PROBST, Secretary.

The committee appointed by the Board of Managers of the Ohio State Reformatory to report on a system of sewage disposal for that institution reported as follows:

MANSFIELD, O., June 3, 1896.

To the Board of Managers, Ohio State Reformatory:

GENTLEMEN: Your committee on sewage disposal beg leave to submit the following as a partial report of their investigations as to the best system of disposing of the sewage at the Reformatory.

In order to make an intelligent and satisfactory report, we thought it advisable to visit places where various systems of sewage disposal plants are in operation. For this purpose we visited a number of places in the Commonwealth of Massachusetts, and are pleased to say that we obtained such practical knowledge of the various systems of disposing of sewage, that we feel that the disposal of sewage at the Reformatory will be an easy matter, and at the same time can be made a practical and successful system.

Of the numerous cities and institutions to which we have been referred, where sewage disposal plants are in practical operation, it did not take us long to ascertain that the sewage disposal plant at South Framingham, Mass., was the most simple in construction, practical and successful in operation, of any system known.

We are justified in saying this, because the Massachusetts State Board of Health so informs us. This Board has taken up the ques-

tion of sewage, with the view of ascertaining what is the best mode and manner of most successfully disposing of sewage. For this purpose they have for years operated an experimental station, and after trying and testing all systems, report that the only successful system of disposing of sewage is intermittent filtration, adding thereto, broad irrigation at times when practical, this being the system at South Framingham, Mass. Hence the Massachusetts State Board of Health referred to this plant, as the best and most successful known. It is so successful that the effluent after filtration is 98 per cent. pure, when it empties from the underground drains.

In fact, we are indebted for a great deal of the information that we received to the officers of the Commonwealth of Massachusetts and especially to the chief engineer of the State Board of Health, under whose supervision the experimental station is operated. We spent considerable time at South Framingham, Mass., investigating in detail their sewage system. Any ordinary person after giving the sewage farm at this place careful examination, will not only say, that it is very simple in construction and operation, but economically practical and complete in every particular. No one needs a sanitary engineer, or other person to tell you this sewage farm is a success, when you are there and observe the same in operation as you can see for yourself, and test it by drinking the effluent as it comes from the underground drain.

South Framingham, Mass., is a city of about 9,000. This sewage farm, not only takes care of the city sewage, but all of the sewage that comes from the Woman's Prison located in the town of Sherborn, just beyond the South Framingham line, having about 365 inmates. This plant purifies from 300,000 to 500,000 gallons of sewage every twenty-four hours, on less than ten acres.

There are three systems of sewage disposal. Chemical precipitation, broad irrigation and intermittent filtration.

Simpson C. Heald, a sanitary engineer of Boston, visited Europe for the sole purpose of ascertaining the best and most practical system of disposing of sewage; and after his return planned and supervised the construction of the South Framingham, Mass., sewage disposal system.

In his report on his return from Europe, Heald says, that from personal investigation of chemical precipitation systems and broad irrigation and intermittent filtration systems, he found that the chemical system was a failure, compared with the other systems. And while the chemical system was not near so successful as the others yet it was much more expensive in construction as well as in operation.

The chief engineer of the State Board of Health of Massachusetts informs us that the same is true in this country, comparing Worcester, Mass., and Canton, Ohio, where the chemical system is in operation, with South Framingham, Mass., and many other cities and institutions where the other systems are in operation. In fact this State Board of Health in

Massachusetts, which has spent a great deal of labor and large sums of money experimenting on this subject of sewage disposal, recommends no other system but intermittent filtration or broad irrigation. In fact they condemn the chemical precipitation system as being impractical, unsuccessful and very expensive in construction and operation.

It is claimed that "land is a natural filter and when sewage is distributed over a large area of it, and the fertilizing ingredients of the sewage utilized so as to produce the greatest return in marketable crops, consistent with suitable purification of the sewage, the application is known as broad irrigation." When the sewage is applied intermittently in as great a volume as can be properly absorbed and purified by the land used, and while not necessarily excluding vegetation, yet making it a secondary consideration to our purification of the sewage, the process is known as intermittent filtration."

Berlin with a population of over 1,300,000 disposes of the sewage on about 4,000 acres, by the systems above referred to.

It may be claimed that the sewage cannot be filtrated in winter when the ground is frozen.

The superintendent of sewage in Berlin reports, that they have turned sewage onto fields where the ground was frozen to a depth of twenty-three inches, and also onto fields covered with ice, the result being that the sewage was sufficiently warm to thaw the ground, and by cutting holes through the ice, the sewage would find its way under and lift it up.

This principle was also demonstrated at South Framingham, Mass., where, on a filter bed containing about one acre, frozen to a depth of about eighteen inches, and with ten inches of snow upon it, 300,000 gallons of sewage were pumped in one day, when the thermometer was at six degrees below zero, the sawage having thawed the ground, and the effluent appearing in the under-drains within six or eight hours after application.

Dr. Frankland, of London, England, from actual experiments made by him to ascertain the capacity of soils for the purification of sewage says: "An acre of suitably constituted soil, well and deeply drained, with its surface level, and divided into four square plots, each of which in succession receiving the sewage for six hours, would purify the sewage for about 3,300 persons."

J. Bailey Denton, with ten years experience in intermittent downward filtration says: "One acre of land will accommodate and take care of the sewage from 1,000 to 1,250 persons in twenty-four hours, according to soils and conditions."

The State Board of Health of Masssachusetts has demonstrated at its experimental station, that one acre of land will purify from 30,000 to 100,000 gallons of sewage in twenty-four hours, according to conditions and management.

It is estimated that the sewage flow, from an institution or city, to be taken care of will be about one hundred gallons a day per capita. This institution with four hundred inmates, would produce daily about 40,000 gallons of sewage.

On June 2, we carefully examined the land across the railroad from the institution, and find that filtration beds can be easily secured, and be built at very little cost, and that the soil is very favorable for filtration as it is very sandy and gravelly. In fact the soil is similar to the soil at South Framingham, Mass. The topographical situation and lay of the land is such that the entire sewage disposal system can be built cheaply. The only thing that will necessitate some extra expense is that the main sewage pipe will have to be carried across the ravine on a trestle to the north side of the branch. The distance from the institution to the filtration beds will be about twelve hundred feet.

The sewage disposal plant can so be built, we think, that almost the whole farm can be irrigated with sewage when desired, and especially can the sewage be run on this land in the winter time, which will be of great benefit to the land as a fertilizer.

We have no hesitancy in saying that one acre of land divided into two beds of one-half acre each, properly built and under-drained, will take care of all of the sewage of the institution, at least until there are more than four hundred inmates.

A sixteen to twenty inch sewer from the railroad to distributing tank, to hold about 2,000 gallons, and located near the filtration beds, will be abundantly large. In fact larger than at the places visited by us.

One of the great advantages at this institution in the construction of a sewage plant, is that no pumping station is needed, as the sewage can be carried from the institution to the filtration beds by gravitation.

We are satisfied that a system of sewage disposal for this institution should be constructed on the plan of the South Framingham, Mass., system.

We therefore recommend that an intermittent filtration sewage disposal system for the reformatory similar to the one at South Framingham, Mass., be built with the addition of such broad irrigation as is practical and will be advantageous to the farm.

We are satisfied that the entire system can be built at a cost not to exceed \$3,000.

For the purpose of having the proper surveys and plans made, and the system carefully and practically built, we recommend the employment of a good, practical sanitary engineer. We further recommend that this engineer so employed make a topographical survey of that part of the farm that may be reached from the main sewer and the disposal beds by broad irrigation.

Respectfully submitted,

S. P. WALCOTT, L. F. LIMBERT, Committee.

OHIO STATE BOARD OF HRALTH.

OFFICE OF THE SECRETARY,

COLUMBUS, July 30, 1896.

To the Board of Trustees, Ohio State Reformatory, Mansfield, Ohio:

SIRS: The State Board of Health has considered your application for approval of plans proposed for disposing of the sewage of the Ohio State Reformatory by means of intermittent filtration, and I have the honor to inform you that said plans have been approved.

I enclose for your information a copy of the report on the proposed disposal works which was adopted by the State Board of Health.

Respectfully,

C. O. PROBST, Secretary.

### REPORT ON SEWERAGE SYSTEM FOR MARTIN'S FERRY.

To the State Board of Health.

GENTLEMEN:

I was notified by the health officer of Martin's Ferry that the city council had passed a resolution requesting immediate action on the part of this Board in approving the outlet of a proposed sewerage system for that city.

I visited Martin's Ferry June 17th, and desire to report as follows:

Plans, which I will present, for a complete sewerage system were prepared in 1893. A part of the system has been built, but no outlet has been provided for some of the sewers and the property holders on such sewered streets have refused to pay their assessments. The matter has been allowed to drag along in this way, the city paying interest on the bonds issued to build these sewers. It is now proposed to commence work at once on an outlet sewer if the approval of this Board can be secured.

The outlet originally planned, as will be seen on the map, is into the Ohio river near the lower end of the city. At this point there is a low valley which carries a large flow of surface drainage from the city

and adjoining land, and which passes to the river through a three foot culvert, under the tracks of the C. & P. Railway. In heavy storms the culvert has proved too small, and the bottoms are overflowed. When the Ohio river is in flood the water pours back through the culvert and overflows the valley. The original plan was to enlarge this culvert, or rather to put in a brick sewer 6x4 feet. Later it was proposed to save the expense of this brick sewer and discharge the main sewers into the ditch which enters the culvert. This culvert ends at the river bank, and if this plan were followed the sewage would be carried in an open ditch for some distance before it would reach the river.

The sewer committee of council, who have recently gone over the ground, report in favor of having the outlet sewer on Monroe street, which is two streets up the river from the outlet spoken of; and both outlets are submitted to the Board for approval of the one considered most favorable. This outlet sewer is calculated to care for sewage from districts, 1, 2, and 3. Districts 4, 5, and 6 each have a separate and independent outlet. Districts 2, 3, and 4 embrace most of the city. Part of sewer district No. 4, including the outlet, has been constructed. This outlet sewer discharges on Carlisle street. The residents of districts 2 and 3, tired of waiting for the main outlet sewer to be constructed, have succeeded in getting council to put in outlet sewers in Walnut and Jefferson streets. These sewers do not as yet carry much sewage. Owing to surface configurations it is impractible to discharge all the sewage at one point without pumping.

Before discussing the location of the new main outlet sewer some general consideration should be presented.

Martin's Ferry is a city of about 8,000 inhabitants. Immediately below it on the Ohio side is Bridgeport, a city of nearly equal size. A little below on the West Virginia side of the river is Wheeling. Wheeling Island divides the river into two channels. This is quite a long island, extending below Bridgeport and the head of it reaches to the lower part of Martin's Ferry.

A bar at the head of the island, in extreme low water, extends nearly to the upper point, Monroe street, where it is proposed to discharge the main sewer. The main channel of the river is on the West Virginia side. At the foot of the island, on the Ohio side, the National Government has constructed a dam to increase the flow in the main channel. At a low stage of the river no water flows over this dam and there is still water on the Ohio side of the island.

Seven miles below Martin's Ferry is the city of Bellaire, having about 12,000 population.

Martin's Ferry obtains its water supply from the Ohio River some distance above the highest proposed outlet sewer. Bridgeport gets water from the same source, having a ten year's contract with Martin's Ferry to furnish them water. Five years of the time have expired.

Wheeling has lately located a pumping station on the river about 2,000 feet below the highest point of sewage discharge in Martins Ferry, which is from sewer district No. 6. It should be said that this district will not be sewered, in any likelihood, for many years to come.

Bellaire takes water from the Ohio River, and is the only city likely to be affected by the sewage of Martin's Ferry. Bridgeport, however, and Wheeling, both much nearer Bellaire, are already discharging their sewage into the Ohio River.

The main outlet as originally planned is objectionable for several reasons. First, even if a 6 x 4 ft. sewer is constructed it is very doubtful if it would carry off all the storm water of the valley in which it is located. This would cause a backing up of sewage or an overflow of storm water and sewage over the valley. The same conditions would occur whenever the Ohio river is in flood. Second, damage from washouts, during heavy storms, which the railway company is now probably responsible for, might have to be paid by the city. Third, this point is below the head of the island in low water, and there is greater liability of a nuisance. The modification of this plan, using the existing culvert for a main sewer, simply increases the weight of these objections, and in addition would leave an open sewer for considerable distance with a discharge into stagnant water, which would almost surely create a nuisance.

The Monroe street outlet is freer from objection, and especially if a submerged outlet extending a hundred feet or more into the Ohio river is adopted. But even this, in the ordinary stage of the river, will not prevent much of the sewage finding its way into the usually stagnant water between Wheeling Island and the Ohio shore. As there is always considerable water here it is not probable that a nuisance will be created.

As to purifying the sewage there appears to be no favorable place for its filtration. By pumping, chemical precipitation could be used, but only at a cost which would probably stop all plans for sewerage, and as this system only removes about 50 per cent. of organic matter, on an average, and has little or no effect on disease germs in the sewage, it is not, in my judgment, to be recommended in this case.

I desire, however, to recommend the Board's approval of an outlet sewer for sewer districts 1, 2, and 3, at or near Monroe street with a submerged outlet to extend at least 50 feet from shore line at lowest water. Also that outlet sewers for districts 4, 5, and 6, as shown by the plans, be approved.

Respectfully,

C. O. PROBST, Secretary.



OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, June 19, 1896.

DR. J. W. DARRAH, Health Officer, Martin's Ferry, Ohio.

DEAR SIR: The State Board of Health has considered your application for approval of a system of sewerage for the city of Martins Ferry, with outlets into the Ohio river at various points along the city's front. At a meeting held in Cleveland June 18, 1896, it was voted to approve of the outlet sewer for sewer districts 1, 2, and 3, at or near Monroe street, with a submerged outlet to extend at least 50 feet from shore line at lowest water.

Also four outlet sewers for districts 4, 5, and 6 as shown on plans submitted to the Board for approval.

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON SEWERAGE AND WATER SUPPLY OF PUT-IN BAY.

To the State Board of Health.

GENTEMEN:

On July 1-3, at the request of the secretary of the Board, and on formal complaint from other parties, I made an examination into the sewerage and water supplies for the two large hotels at Put-in Bay, and incidentally into the sanitary condition of the island.

The new "Victory" hotel obtains all its drinking water from a well sunk 170 feet through stone. This well is situated in the center of the court and away from all contamination, so far as surface conditions are concerned. The water is so abundant that, during the construction of the hotel and all adjoining buildings, no other water was used by the masons, brick-layers and plasterers. It is called an "Artesian" well, but the name is not proper, since the water must be brought to the surface by means of a pump. The well is piped down to the depth of sixty feet.

For bathrooms and laundry, water is obtained from Lake Erie. The pipe for the inlet is carried 180 feet into the lake and into deep water. The sewer system is modern and satisfactory, except as to the outlet. A complex system of pipes collects all waste waters from closets, bathrooms, laundry and kitchens and conducts it to a very large cess-pool. These pipes are flushed every thirty minutes from three flushing tanks, each discharging 75 gallons. The cess-pool is simply a vat or tank where the more solid matters from kitchen and closets may be collected and removed to the land at a safe distance from the building. The more fluid portions of the collections pass out from the pool through a system of

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iron pipes, with perfect joints, to a point more than 200 feet from the lake shore, and at a point as far away from the intake of the water (for laundry and bathroom) as possible. The originators of the Victory hotel project have expended much time and money in these arrangements, and further expressed themselves as intending to adopt some system of sewage disposal as soon as their financial condition would allow.

The case of the Beebe House is a puzzle. The proprietor claims that he has never had a case of typhoid fever in his house. Everything about the house, grounds and outbuildings is in perfect order. The place is suggestive of rest and perfect health, and yet it seems to me that it is only by chance that the hotel has not been visited by an epidemic of typhoid.

The following diagram will give you an idea of the conditions so far as sewage outlet and water intake are concerned:

"A" represents a wharf in front, and just across the street from the hotel. It is in part made ground, in part open crib-work. "X" is the present end of the intake pipe. Material is on the ground for extending this pipe 60 feet further into the lake.

"B" represents a low, flat dock filled with water plants, mud and broken stone. It is at the present time so filled up that not even a row-boat could be taken through it.

"C" is the outlet to the hotel sewer. At and near the mouth there is a mass of black mud covered by thick, green slime. The very sight of the place is enough to condemn it.

I can see nothing to prevent the sewage that finds an outlet at the point "C" from working its way to the point "X" where all the water used in the hotel is obtained. The distance around the wharf would be less than 250 feet, while the direct line through the wharf would be only 180 feet. Inasmuch as the sewer and water pipes at the Beebe House have been in place for more than a quarter of a century, we may well doubt the character of the work. The relation of the Board to the matter is not so clear. The law should give us authority to correct such palpable infractions of sanitary methods, but does it?

Within a few hundred feet of the Beebe, and that much nearer the boat landing, a new building has just been erected. It is partly on land and in part built over the water. All drainage from it will be directly into the lake and at the point on the shore most visited by excursionists. This building is to be used for saloon and kindred purposes.

Almost touching this site is the point where a public water supply is obtained. The time at my disposal would not suffice for a complete investigation as to the extent to which this water is used for drinking purposes on the island, but all information was to the effect that the use was a general one. Here, as in the case of the Beebe House, the real authority of this Board may be a subject for discussion. The supply of water has been obtained from this point for many years. The new



building will not have connections with any sewer system, but it will evidently be a source of danger to the water supply. It is to be hoped that the influence, if not the authority, of the Board may bring about a better state of things along the front of Put-in Bay, one of the most popular of our Ohio lake resorts.

Respectfully,

E. T NELSON, Committee.

# REPORT ON PROPOSED SEWERAGE FOR SIDNEY.

To the State Board of Health.

GENTLEMEN:

Having been appointed by the President to inspect and report upon the proposed sewerage plans for Sidney, I would respectfully submit the following:

The proposed sewer will discharge into the Miami river about seven thousand feet from the principal street and about one-half mile from the corporation line. At the point of discharge there is a constant flow of water at all seasons of the year.

The proposed plan contemplates the separate system for the city with the exception of the part near the public square, where provision is made for taking the storm water from an area of about ten acres.

It is estimated that the dimensions and grade of the sewer are such that it will suffice, when flowing half full, for a population of ten thousand persons, or at its maxmum, for twenty thousand.

The sewer is to be vitrified sewer pipe, the main, for a distance of 3,900 feet from the point of discharge, to have a diameter of twenty-two inches, and for a distance of 2,725 feet, of eighteen inches. The branches will be fifteen, twelve, ten, eight and six inches. The entire length of sewer will be 43,140 feet.

The flushing will not be automatic, but will be by direct connection with the water mains—four inch connections for the laterals and larger connections for the larger sewers. The main sewer, for 3,900 feet from the outlet, will be flushed by means of a ten inch pipe from the Miami river above the dam. The sewer will be ventilated by perforated manhole and lamphole covers.

The system is arranged, and the outlet is favorably situated for any kind of purification should that be required.

I would recommend that the proposed plans be approved on condition that the city of Sidney will agree to purify the sewage in a manner satisfactory to the State Board of Health should the discharge of raw sewage into the river create a nuisance.

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I desire to express my thanks to Mr. Ben Coulson, engineer in charge, to Dr. Edwin LeFevre, health officer, and to Messrs. J. C. Royan and Walker Stowell, committee of council, for assistance in making the inspection.

Respectfully,

Byron Stanton, Committee.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, February 26, 1896.

MR. BEN COULSON, City Engineer, Sidney, Ohio:

DEAR SIR: The application for approval of system of sewerage for the city of Sidney, has been acted upon by the State Board of Health. I enclose herewith a copy of the report prepared by Dr. Stanton, special committee, and which has been submitted to the State Board of Health and approved by that body subject to the conditions named in the report.

Before proceeding with your sewerage system it will be necessary for the proper authorities of your city to sign their agreement to said conditions.

Yours truly.

C. O. PROBST, Secretary.

# REPORT ON SEWERAGE FOR TOLEDO.

At a meeting of the State Board of Health held in Columbus January 29, 1896, the following request for approval of plans for sewering Auburndale and Sewer District No. 25, of Toledo, were represented:

COLUMBUS, January 29, 1896.

TO THE HONORABLE STATE BOARD OF HEALTH, State of Ohio:

GENTLEMEN: In compliance with your request of this P. M., would say the points we desire to call your attention to are as follows:

First—The city of Toledo is a city of the first class, third grade, and under the statutes has no authority to appropriate lands for the purpose of sewage purification.

Second—If the city had the power to appropriate lands for sewage purification it has no authority to pay the cost of the same out of the city funds or to assess the cost thereof on the property in the district or districts benefited.

Third—Toledo cannot assess the cost of the construction of more than one sewer system upon the property benefited. Thus it follows that it would be impossible to assess the cost of both storm water and house sewers.

Fourth—The general fund of the city of Toledo is not in a condition to pay for the cost of either one of the two systems.

Fifth—In the portion of the city now sewered the entire cost of constructing sewers in each district has been paid by assessments upon the property in the respec-

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tive districts, and the property owners in such districts object (as we think rightfully) to paying a part of the cost of constructing sewers in other districts.

Sixth—Ottawa river, into which we desire to discharge the sewage as shown on the plan in your hands, is a stream already contaminated. There is one sewer already emptying into the same, and the outlet of the proposed sewer is some six miles, following the meanderings of the stream, from the Maumee river. Ottawa river empties into the Maumee river about ten miles below the city water works, and between these points there are a number of sewers emptying into the Maumee river.

Seventh—It is proposed to construct this sewer so as to empty its contents into Ottawa river at a point below where there is running water at all seasons.

Respectfully submitted,

WM. G. CLARK, City Engineer. C. F. WATTS, City Solicitor.

It was voted to approve the plans for sewer district No. 25, and to disapprove the plans for Auburndale.

At a meeting of the State Board of Health held in Lima, October 22, 1896, a request for approval of sewerage for districts numbers 26 and 27 of the city of Toledo was presented as follows:

TOLEDO, OHIO, October 21, 1896.

To the Honorable State Board of Health:

GENTLEMEN: In behalf of the the city of Toledo, request is hereby made to your honorable body for the approval of plans for, and permission to construct sewers in sewer districts numbers 26 and 27, as shown by the plans before your Board, as follows:

For sewer district No. 27, a system of house drainage or sanitary sewers with the outlet sewer in Valley Street.

For sewer district No. 26, a combined system of sewerage with the outlet in Third Avenue.

For sewer district No. 26, a separate system of sewers comprising first, a system of sanitary sewers for house drainage, and second, a system of storm water sewers for street and lot drainage, the outlets both being in Third Avenue.

It is proposed that these sewers shall for the present, and until such time as your Board shall require other disposition to be made of the house sewage, or until disposal works or a system of intercepting sewers shall be constructed by the city, drain into Ottawa River or Ten Mile Creek.

The outlets of both the sanitary sewers will be at sufficient elevation to permit of the sewage being taken to a point west of Auburn Avenue and there disposed of either by precipitation or filtration without pumping.

Awaiting the action of your Honorable body, we remain,

Very respectifully yours,

WM. G. CLARK, City Civil Engineer. F. W. RAKESTRAW, Special Committee.

It was voted to approve the plains as presented, but only as a temporary expedient as regards the location of outlets of the sewers.



## REPORT ON SEWERAGE SYSTEM FOR WILLOUGHBY.

To the State Board of Health.

GENTLEMEN:

At the last meeting of the Board the village of Willoughby presented plans for a sewerage system with an outlet into the Chagrin river three or four miles from its mouth. It was decided to require purification of the sewage.

The authorities of Willoughby have again brought the matter before the Board. It is claimed, first, that to insist on purification of the sewage at this time means to defeat the construction of sewerage which is badly needed, as the village has a public water supply which has greatly increased the amount of waste water to be gotten rid of. And, second, that the public health will not be injuriously affected, at least for the present, by permitting raw sewage to be discharged into the Chagrin river, as proposed. Mr. Hartzell and the Secretary were appointed to make an investigation of the situation, and visited Willoughby on July 25th, 1896. The Chagrin river was inspected from the point where the outlet sewer is planned to discharge into it to its mouth. There are no houses near this part of the river, and it is not used for domestic purposes, nor for watering stock. The nearest town on Lake Erie which could be affected by sewage from Willoughby (through its water supply) is Painesville, which is ten miles from the mouth of Chagrin river.

While admitting fully that raw sewage should not be turned into lakes or rivers, where avoidable, we are of the opinion that for the present no special harm is likely to result from permitting Willoughby to discharge sewage into the Chagrin river, as proposed; and we therefore recomend that the plans be approved, subject to the condition that the proper authorities of Willoughby will agree to purify the sewage in a manner satisfactory to the State Board of Health, and whenever demanded by said Board, cause for such purification being shown.

Respectfully,

JOSIAH HARTZELL, C. O. PROBST, Committee.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, AUGUST 3, 1896.

Mr. J. B. STRAWN, Consulting Engineer, Salem, Ohio:

DEAR SIR: The State Board of Health has reconsidered your application made on behalf of the village of Willoughby to approve the plans for sewering said village, including the discharge of raw sewage into the Chagrin river, and the same have been approved by the Board subject to the following conditions, viz. that the proper authorities of Willoughby will agree to purify the sewage in a manner satisfactory to the State Board of Health, and whenever demanded by said Board, cause for such purification being shown.

You will please make known to this Board whether the conditions are accepted.

Respectfully,

C. O. PROBST, Secretary

# Nuisances.

# REPORT ON AN INVESTIGATION OF AN ALLEGED NUI-SANCE AT DEFIANCE.

To the State Board of Health.

#### GENTLEMEN:

About a year ago complaint was made to this Board of a nuisance in Defiance occasioned by the stock yards of the Wabash Railway. I informed the complainant that this was a matter to be dealt with by the local board of health, and pointed out the law governing the case. Nothing apparently was done, and in May last the following petition was received:

DEFIANCE, OHIO, MAY 6, 1896.

## To the Honorable Ohio State Board of Health:

We, the undersigned, residents and citizens of Defiance, O., respectfully petition your Honorable Board, to make an investigation of a nuisance now and for a long time prior hereto, existing in said city, which said nuisance consists, in part, of keeping a large number of hogs and other animals in a small unpaved enclosure in the central and residence part of said city, and making foul and offensive mires and wallows for hogs therein, and in pouring water from hose upon hogs when loaded on cars for shipment, whereby dirt and filth dangerous to public health is deposited and permitted to remain in and about said enclosure.

J. R. Cunnigham,	F. J. Weisenburger,	L. J. Archambeault,
A. Krotz,	Joseph Clement,	L. Archambeault,
John B. Bey,	N. J. Cunningham,	A. J. Hinsey,
W. B. Palmer,	Abraham Smith,	Nicholas Sinner,
J. J. Bagelmier,	H. F. Roebes,	John Schneider,
Mrs. Francis Bittner,	W. F. Kahn,	L. N. Shoudd,
Isaac Deveaux,	C. P. Harley,	James M. Wilt,
H. E. Myers, D. D. S.,	J. A. Evans,	J. J. Kahls,
E. N. Lewis,	P. J. Shannon,	Jos. Weisenberger,
J. M. Weisenburger,	R. W. Wortman,	T. P. Cautlon,
J.B. Weisenburger, perF.J.W	7. F. Mahoney,	Geo. A. Ensign,
Alf. J. Wolseffer,	W, J. Bohannon,	Mrs. B. Schlimboch,
H. W. Myers, D. D. S.,	E. J. Grafen,	John Sheridan.

I visited Defiance May 27th, and met Mr. Cunningham, whose name appears first on the petition. This gentleman lives directly across the street from the stock yards, which are not far from the center of the

city. The yards on examination presented a clean appearance, and there were no bad odors observable. I was informed, however, that they had been thoroughly cleaned a few days before, and the surface covered with fresh cinders. No stock had been shipped for a week; and although it was the regular day for shipping when I was there, none was being shipped that day.

The yards consist of two enclosures separated by a driveway for loading stock into the cars. I was informed that the stock, mostly hogs, are usually shipped twice a week during shipping season, and from one to two car loads each shipment. These hogs are brought to the stock yards and are kept in the enclosure until loaded. Hogs are often kept in the yards or in the cars twenty-four to thirty-six hours before removal.

Near the yards is a railway watering tank, and it is customary to wash the hogs in the cars with a stream of water from this tank. This washes on to the ground a considerable amount of filth.

These stock yards have been located here for many years, and have been a constant annoyance and source of complaint to people in their neighborhood. I talked with a number of citizens about the matter, and all condemned the stock yards as a nuisance and thought they should be removed.

About five years ago the board of health adopted a resolution declaring these stock yards a nuisance and ordering their use to be stopped. The man who was doing the shipping at that time, it is alleged, was a member of the board of health, but was absent on the evening this resolution was adopted. He returned next day, a special meeting of the board was called, and the resolution was rescinded.

While examining the stock yards attention was called to another matter deserving mention. Near the stock yards the Standard Oil Co. has located storage tanks for coal oil and gasoline. These are large iron tanks holding many thousands of gallons. They are surrounded by buildings of an inflammable character, and are a constant menace to hundreds of people in their vicinity. A city ordinance prohibits such storage, but it is not enforced. (I should have mentioned that there is an ordinance prohibiting the keeping of hogs within the corporation.)

I called on the health officer, Dr. P. H. Aldrich, and questioned him concerning the stock yards. He said they were undoubtedly a nuisance which could only be abated by their removal. He said, which is true, that he could not very well act in the matter until they had been declared a nuisance by the board of health and ordered abated, and promised to promptly carry out such an order as soon as it should be adopted. No formal complaint, he said, had been made to the present board of health; and he thought the board would take action to abate the nuisance if the aggrieved property owners would petition the board to have it done.

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In regard to the storage of gasoline and coal oil, he said any person interested in having it removed could easily have it done by making an affidavit before the mayor charging the Standard Oil Company with violating the city ordinance.

I advised Mr. Cunningham and others interested to petition the local board of health to abate the stock yards nuisance and to report if no action was taken by the board. I also pointed out how the petitioners could themselves secure the abatement of the nuisance by the courts, if the board of health failed to perform its duty in the matter.

There appears to be, without doubt, a great nuisance affecting many people, occasioned by these stock yards in Defiance, but until the present local board of health, after a proper petition from aggrieved persons, refuses to abate it, there is no occasion in my judgment, for this Board to take further action in regard to it.

Respectfully,

C. O. Probst, Secretary.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY,
COLUMBUS, June 19, 1896.

To the Board of Health, Defiance Ohio:

GENTLEMEN: I am instructed by the State Board of Health to send you a copy of a report of an investigation of an alleged nuisance in your city, which I made, and to urge upon your board to take immediate action to have this nuisance abated.

Yours truly,

C. O. PROBST. Secretary.



# Miscellaneous.

REQUEST FOR APPROVAL TO ISSUE BONDS FOR STREET CLEANING PURPOSES IN HAMILTON.

Hamilton, Ohio, March 19, 1896.

To the Honorable State Board of Health, Columbus, Ohio:

GENTLEMEN: The resolution herewith enclosed is a request to the proper authorities of the city of Hamilton, Ohio, to take the necessary steps to clean the streets and alleys of said city.

Under a law governing the city of Hamilton, Ohio, it is not permitted to issue bonds in anticipation of the collection of taxes for street and sanitary purposes without first submitting the matter to a vote of the people. This act repeals section 2700 of the Revised Statutes, but section 8 of said act provides as follows:

"That in cases of epidemic, or when, in the opinion of the board of health of any such city, it is deemed necessary and expedient for the public health and for the preservation of life, and when there are not sufficient funds available with which to put the city in a good sanitary condition, the council of any such city is hereby authorized and empowered to issue the bonds of said city in any amount deemed necessary and to sell them at private sale if the case is urgent; but in no case shall they be sold for less than their par value; provided, however, before any bonds are issued, as authorized in this section, the board of health shall make a written request of the council, stating its reasons for asking the issue of bonds and the amount necessary and said request, before being presented to said council, shall receive the written endorsement of the State Board of Health that said request is necessary and ought to be granted."

Under said section, you perceive it is necessary that the request of the city board of health has the endorsement of your Board before the city can proceed to issue bonds for the prosecution of said work.

The present condition of the streets and alleys of the city of Hamilton, Ohio, demands immediate attention. They have not been cleaned for the last fifteen months, during which time they have been torn up by the construction of storm and sanitary sewers, and left in such a condition that it was impracticable to attempt giving them a thorough cleaning

until now. The past winter has been very soft, and the streets not being paved large accumulations of dirt have gathered upon them in such quantities as to make them dangerous to the public health of the city.

At the present time some typhoid fever and diphtheria exist in the city and it is unnecessary to urge upon your Board the necessity for some immediate action to be taken by the city to put them in a good sanitary condition before warm weather sets in.

The street fund of the city is depleted and before any such work can be prosecuted it is necessary for the city to have power to issue bonds for such work.

As provided by section 8 of said law, we ask your Board to endorse the within written request to the city of Hamilton, Ohio.

Hoping for favorable action, we remain,

Respectfully yours,

THE BOARD OF HEALTH OF THE CITY OF HAMILTON, OHIO, Attest: J. F. HEATH, By PETER A. CLAIR,

Secretary. President.

HAMILTON, OHIO, March 19, 1896.

To the Honorable City Council of the City of Hamilton, Ohio:

GENTLEMEN: At a meeting of the board of health of your city held on Wednesday evening, March 18, 1896, the following resolution and request was formulated:

WHEREAS, Since the last cleaning of the streets and alleys of the city of Hamilton, Ohio, more than fifteen months ago, the streets and alleys have been torn up by the construction of storm and sanitary sewers, which have left large accumulations of dirt that have never been removed from the surface of said streets, and as the streets are now in a filthy condition and no effort is being made by your body to give them a thorough cleaning, for the alleged reason that there are no funds to pay the cost and expense of said work; and

WHEREAS, It is necessary under the provisions of law applicable to the city of Hamilton, Ohio, that before any bonds can be issued for said work a request to do the same must be made by your board of health and approved by the State Board of Health, Therefore

Be it resolved by the Board of Health of the City of Hamilton, Ohio, That in the opinion of said board of health it is deemed necessary and expedient for the public health, and for the preservation of life, and the sanitary conditions of the city, to prevent the spread of contagious diseases, or the possibility of an epidemic, which the present conditions of the streets and alleys makes possible, that your honorable body is hereby requested to give said streets and alleys a thorough cleaning within the next thirty days, and for said purpose issue bonds in the sum of five thousand dollars (\$5,000.00) to pay the cost and expense of prosecuting said work.

Adopted March 19, 1896.

Attest: J. F. HEATH,

Secretary.

PETER A. CLAIR
President.



COLUMBUS, March 31, 1896.

MR. M. O. BURNS, Clerk, Hamilton, Ohio:

DEAR SIR: I submitted to the State Board of Health copies of the papers you handed me in reference to approving the issue of bonds by the city of Hamilton for street cleaning purposes. Six of the seven members have answered, and all of them vote against such approval, and especially by a mail vote. Although I judge from the replies that the Board will not approve of the issue, it is possible that this may be done if the matter is presented at a meeting of the Board.

It is probable that the next meeting of the Board will be held on the fourth Wednesday of April, the 22d, instead of the third, and that it will be in Cincinnati.

If you desire to appear before the Board let me know and I will notify you of the exact time and place of meeting as soon as it is settled.

Yours truly,

C. O. PROBST, Secretary.

# REPORT ON THE SANITARY CONDITION OF THE FRANK-LIN COUNTY CHILDREN'S HOME.

Ohio State Board of Health, Office of the Secretary, Columbus, O., May 7, 1896.

Mr. Thomas E. Knauss, Trustee Franklin County Children's Home, Columbus, Ohio:

DEAR SIR: At your request Dr. Hoover and myself made an inspection of the water-closets in use at the Children's Home. These consist of long troughs filled with water, which are flushed by the engineer three times a day. Although the windows in the wash-room containing the closets were all wide open, there was a decidedly offensive odor in all of them. In the winter, when windows are closed and the rooms are heated, this must be much worse; and the odors would then find their way into the occupied portion of the building. Plumbing of this character would not now be allowed to be put into any building, and we strongly urge that these old closets be replaced by flush closets of modern pattern.

In the basement are a number of rooms with floors laid upon the ground, with no ventilation beneath them. Such rooms cannot escape being damp and unhealthful, and the necessary changes should be made now while the building is undergoing repairs.

Trusting these conditions which threaten the comfort and health of these orphan wards of our county will receive prompt attention, I remain,

Yours respectfully,

C. O. PROBST, Secretary.

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# REPORT ON INSPECTION OF HARDIN COUNTY INFIRMARY.

To the State Board of Health.

GENTLEMEN:

On July 20, I visited the Hardin County Infirmary and beg to repor t as follows:

The infirmary is nicely situated on a farm of two hundred and fifteen acres about one-half mile from Kenton, and on an elevation which gives it excellent natural drainage.

The infirmary is a two story building and basement. There are sixty inmates at the present time of the usual type. Twelve of them are insane and two are idiots.

The infirmary is clean and well kept but the plumbing and sanitary condition are very poor and need attention at once. The sewage is carried to the Scioto river in a sewer of ample capacity if properly flushed. In the basement is a small room about 9 by 15 feet in which four old men live, three of whom are over 88 years of age, who are too feeble to go up and down stairs; two of these inmates pay for their keeping. Off from this room is a small room with two beds and an old style iron hopper water closet connected with the sewer but without proper trapping and flushing. When it is desired to flush this closet water is carried for that • purpose; the stench arising from this is something terrible. No person should be permitted to live in such a room under such conditions. Back of this room is the cell room containing two cells six by eight feet each. Each of these cells has the same kind of hopper closet and in the same condition as the one just mentioned. In these cells are kept two insane inmates who are seldom taken out of this foul prison-for such it is. No human being, not even a criminal, should be kept in such a place; with the vile stench of an open sewer perpetually poisoning the air; with never a chance for fresh uncontaminated air to fill his lungs, but always that sickening stench from human excrement filling the atmosphere.

There are two outside closets, one for each sex. The men's closet is divided by a partition and is built up against the infirmary. The vault is connected with the sewer but this connection has long been closed and there is no means of flushing it and the stench arising from it can be better imagined than described. The women's closet is in the same condition as the men's. The sewer connection being closed and no means of flushing it. Between these closets, and about sixty feet from each, is a well which supplies part of the water for the inmates. This well is one hundred and seven feet deep and there is great danger of it being contaminated, if it has not been.



There is one closet in the superintendent's department that has recently been put in which is in good condition.

We recommend that the present closets be removed and that sanitary closets be put on each floor. That the outside closets be abandoned or properly connected with the sewer and frequently flushed. That the insane department be made separate from the other departments and that it be so arranged that the inmates can get out each day in the fresh air. To do this properly will require a separate building. We would also recommend that the hospital ward be improved and differently located.

We desire to acknowledge the kindness shown by the directors, Messrs. Tidd and Richeson, also Superintendent Wilson and Dr. W. H. McIlvain, the county physician.

Respectfully,

R. D. KAHLE, Committee.

OHIO STATE BOARD OF HEALTH,
OFFICE OF THE SECRETARY.
COLUMBUS, July 30, 1896.

To the Commissioners of Hardin County:

DEAR SIRS: Complaint having been made to this Board of the unsanitary condition of the Hardin County Infirmary, an investigation was ordered and was made by Dr. R. D. Kahle, a member of the B ard, on July 20th.

The report has been approved by the State Board of Health, and is respectfully referred to your Board with the request that the necessary changes be made as soon as possible.

Yours truly,

C. O PROBST, Secretary.

#### REPORT ON THE SANITARY CONDITION OF LAKESIDE.

To the State Board of Health.

GENTLEMEN:

In the fall of 1895 a considerable number of cases of typhoid fever, apparently traceable to Lakeside, were reported to the Board. The matter was referred to the local board of health and to the managers of that resort. The resident physician, Dr. Waters, reported that nearly all of these cases were persons using water from what was known as the chapel well. An examination showed that this well was located within four or five feet of a sewer, which is laid in the rock, and near the point where this sewer makes a right angle turn. On exposing the sewer and testing it, it was tound to leak where it passed the well. This sewer carries the waste from the public water closets, including several cottages, and it is easy to understand how this well may have been specifically contaminated.

The well was closed and a new well drilled about 25 feet from the old one, and 30 feet from the sewer. It is 46 feet deep in rock, and is cased with iron tubing for 8 or 9 feet. The sewer is unchanged and doubtless still leaks.

This well furnishes only a part of the water supply. All of the cottages, of which there are a large number, the hotel and the public drinking fountain, which is the usual supply for transient visitors, obtain water from the lake. The intake pipe is about 100 feet from the shore, and where there is a usual depth of water of 7 to 8 feet.

The ordinary current of Lake Erie is from west to east, though very inconstant, but even this slight protection was neglected at Lakeside, as the water is taken east of the village.

Three to four hundred feet west of the water intake is the public bath house, not a pleasant thought to cleanly people, even though the bathers are clean people.

West of the bath house a few hundred feet is a pier for a boat landing. A large number of boats lie at this pier a greater or less time each day during the season, and endanger the water supply. About five to six hundred feet west of the pier the outlet sewer discharges into the lake near the shore. This carries practically all of the sewage, which amounts to considerable. Last season there was an average daily attendance during the height of the season of about 6,000 people. This season there were about half as many.

The sewer and water intake are about one-fourth of a mile apart. The water at the sewer's mouth was very foul. The surface of the lake was gently rippled, except a widening streak of water extending from the mouth of the sewer east beyond the end of the pier. Dr. Waters, the resident physician, said this smooth water was caused by the grease in the sewage, and that he had often watched it pass the pier. This seems a reasonable explanation of the fact. The pier is made as usual or piling filled with stones. The management make a good deal of this pier as a protector of the water supply, claiming it defects the sewage polluted water and causes it to pass beyond the intake. As a matter of fact the water passes very freely through this pier, and it gives little or no protection against pollution of the drinking water.

As will be seen, the sewer and water intake are just wrong end to, but even if their positions were reversed they are not sufficiently far apart to remove all danger of contamination of the water supply.

On the bank near the mouth of the sewer, is the ice house. The management claim that ice is always cut a considerable distance west of the sewer, but the statement was made by one in position to know, and who may be believed, that the ice is frequently cut not more than two or three hundred yards from the sewer's mouth. It is true that this is done at a time when there are only permanent residents at Lakeside, but there is always some sewage running. All the cottages have out door water

closets, so there is no trouble from bad odors from leaky drains or closets.

The sanitary conditions at Lakeside are decidedly bad, and should receive the attention of this Board before the opening of another season. Some necessary changes of some magnitude suggest themselves, but will not be dealt with in this report.

Your president and secretary visited Lakeside on August 4th, and obtained the information on which this report is based. Under date of August 31, 1896, a communication was received from Dr. LeFevre, health officer of Sidney, in which he stated that several persons who went from there to Lakeside had returned sick, some developing typhoid fever. Subsequently I got reports of the following cases:

Mr. William Piper and family of Sidney went to Lakeside July 9th and returned July 29th. They lived at Parsons' cottage and used water from the new chapel well and, excepting himself, from the lake, that is the fountain or public supply at the office. His wife was taken sick about the time they returned; two children about two weeks after; one in three weeks and one more than four weeks after. The last two cases could hardly be attributable to Lakeside.

Miss Julia Elsner of Sidney wrote that she went to Lakeside July 29th and returned August 14th. She lived at Parsons' cottage and used water from the "public" (she undoubtedly means the new chapel well.) She was taken ill September 5th. This would give an incubation period of twenty-one days, which some authors credit, but it is possible that she could not exactly fix the date on which she was taken ill.

Mr. F. Briggs and family of Delta, Ohio, went to Lakeside July 10th and returned August 18th. There were Mr. Briggs, wife and four children. The youngest son, aged 16, developed typhoid fever a few days after his return. There were no other cases in the family. They used water from the new chapel well.

Miss Galer of DeGraff, Ohio, went to Lakeside July 21st and returned August 1st. She was taken ill August 12th, and died September 1st. She used water from the new chapel well.

Miss Barr of the same place was there at the same time and in the same company. Presumably she used the same water supply. She developed typhoid fever a few days earlier than Miss Galer, but recovered.

Miss Gertrude Stout of Toledo, Ohio, went to Lakeside June 15th, and returned early in August. She developed typhoid fever ten days before returning and was still in the hospital in Toledo, when I heard from her, September 26th. She used the water from the Third street well, which is, as I understand, this new chapel well.

Miss Gerard of Crawfordsville, Ind., went to Lakeside July 1st, with her mother and brother. She was taken home the last day of August, ill with typhoid fever, the disease having developed two weeks before. She was about well October 15th. Minnie Streh, of the same place, who was at Lakeside with the Gerards and in the same cottage, was also taken with typhoid fever (time not given) and was still seriously ill when I heard from her—October 15th; drinking water was from the chapel well.

These were the only cases of typhoid fever traceable to Lakeside that I heard of, though several others were reported to have contracted diarrhoea there.

Leaving out two cases in the Piper family, probably contracted at home, this makes ten cases and one death. All of these people used water from the chapel well.

It should be remembered that thousands of persons visit this place who remain but a day or two, and how many contracted typhoid fever there, and never suspected its origin, no one can tell.

The resident physician, Dr. Waters, under date of September 11th, answering inquiry of September 7th, wrote that at that time there were not more than twenty-five or thirty nonresidents there. That they had no typhoid fever, and that he had no cases, though he had seen a number of cases of malarial fever in both residents and nonresidents.

I trust the board will take some decided action in regard to conditions at this resort.

Respectfully,

S. P. WISE, C. O. PROBST, Committee.

## REPORT OF THE SANATARY CONDITION OF RIPLEY.

To the State Board of Heal.h.

GENTLEMEN:

I would respectfully report that on the occasion of a recent visit to Ripley, Ohio, for the purpose of making an inspection of the proposed water supply, I found a state of affairs in the health department of the town that I think should receive the attention of the State Board of Health.

There is but little attention paid to the sanitary condition of the town. The streets are not kept as clean as they should be; vaults are seldom cleaned and frequently overflow; the town lock-up was in a bad sanitary condition. The sanitary officers do not get enough pay to induce them to remain in office. The health officer is not encouraged in the discharge of his duties—indeed is often discouraged by members of council and of the board of health from enforcing sanitary regulations. The board of health is inefficient, very seldom meets, has held but one meeting in the last several months. It has no rules in regard to burials,



and does not enforce the statutes in regard to interments. It does not require physicians to make certificates of cause of death. It does not enforce the law in regard to reporting contagious diseases. It does not require the placarding of houses in which there may be dangerous communicable diseases. It does not require from physicians the reports of births and does not comply with the rules of the State Board of Health in regard to making monthly reports of vital statistics.

Believing that such total disregard of sanitary rules and regulations should receive the attention of the State Board of Health, I respectfully submit this report.

Respectfully,

Byron Stanton, Committee.

# LIST OF MUNICIPAL BOARDS AND HEALTH OFFICERS.

# JANUARY 1, 1897.

Alman	Dr. G. M. Todd.
Alliance.	Dr. John A. Roach.
Bellaire	Dr. D. W. Boone.
Bucyrus	Dr. W. A. Daugherty,
Canton	Dr. J. F. Marchand.
Chillicothe	Dr. C. S. McCafferty,
Cincinnati	Dr. J. W. Prendergast.
Circleville	Mr. W. F. Tolbert,
Cleveland	Dr. J. L. Hess.
Columbus	Dr. D. N. Kinsman.
Dayton	Dr. A. H. Iddings.
Defiance	Dr. P. H. Aldrich.
Delaware	Dr. E. M. Semans.
East Liverpool	Dr. C. B. Ogden.
Premont	Dr. R. B. Meck.
Findlay	Mr. Amos Beardsley.
Postoria	
Galion	Mr. J. O. Hess. Mr. A. Brokaw.
Gallipo is	Dr. E. Westlake.
Greenville	Dr. A. F. Markwith.
Hamilton	Dr J. S. H. Potter.
Irouten	Dr. J. W. Lowry,
Kenton	
Lancaster	Dr. J. W. Binckley.
Lima	Dr. J. P. Hershberger. Dr. L. F. Laudick.
Mansfield	
Marietta	Dr. J. Harvey Craig. Dr. B. F. Hart.
Ma-sillon	Dr. T. Clarke Miller.
Martin's Ferry	
Marion	Dr. J. W. Darrah. Mr G. W B:ain.
Middletown	Dr. Geo. D. Lummis.
Mt Vernou	Dr. H. W. Blair.
Newark	Dr. J. P. H. Stedem,
Norw lk	Dr. Edgar Martin.
Piqua	Dr. W. N. Unkefer.
Pomeroy	Dr. R. E Stobart.
Portsmouth	Dr. Joseph Swanders.
Salem	Dr. F. T Miles.
Sandusky	Dr. C. Eugene Stroud.
Steur enville	Mr. D. E. Halstead, Sec
Springfield	Dr. Henry H. Seys.
Tiffin	Dr. J. W. Russell.
Toledo	Dr. J. W. Russell. Dr. J. T. Woods.
roy	Dr. T. M. Wright.
Troy Trhana	Dr. H. C. Houston.
VarrenVarren	Dr. M. L. Williams.
Warren	Mr. J. M. Edwards.
eliston	Mr. A. D. Ward.
	Mr. J. T. Warren.
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elisv:1leooster	Dr. J. E. Barrett.
nia	Dr. A. D. DeHaven.
niaungstowii	Dr. H. E. Welch.
ungstowii	Dr. H. T. Sutton.

# EXECUTIVE DOCUMENTS.

# VILLAGES.

Aberdeen	Dr. T. Heaton.
Ada	Mr. W. H. Morrow.
Adamsville	Mr. S. J. Lane.
Adelphi	Mr. Geo. B. Rose,
Addyston	Mr. Hugh Kennedy.
Albany (Lee P. O.)	Dr. A. F. Holmes.
Allentown	• • • • • • • • • • • • • • • • • • • •
Alexandria	
Alvordton	Dr. T. E. Schrider.
Amelia	Dr. W. B. Doan.
Andover	Mr. T. R. Wood.
	Dr. C. W. B. Harbour. Dr. H. A. Snorf.
Ansonia	Mr. Chas. Roberts.
Apple Creek	MI. Chas. Roberts.
Arcadia	Mr. J. E. Bowman.
Arcanum	Mr. E. B. Hawley.
Archbold	Mr. August Ruihley.
Arl ngton	Mr. J. S. Eccleston.
Arlington Heights	Mr. J. H. Francis.
Ashland	
Ashtabula.	Dr. A. W. Hopkins.
Ashley	Dr. H N. Coomer.
Ashville	Mr. J. W. Johnson.
Athalia	
Athens	Dr. J. L. Henry.
Attica	Dr. C. A. Force.
Avon	Dr. T. B. Dailey.
Bainbridge	Dr. R. H. McKee.
Bairdstown	***************************************
Baltimore	Dr. C. M. Alt.
Barberton	Dr. T. Elliot Tait.
Barnhill	Mr, Lewis Just.
Barnesville	Dr. D. H. Crawford.
Batavia	Mr. Joseph Bicking.
Batesville	Dr. F. Wardlow.
Beach City	Mr. E. W. Spidell.
Bealsville	Dr. John W. Reed.
Beaver Dam	Dr. J. W. Wisely.
Bellbrook	Mr. C. W. Kerslake. Mr. Geo. E. Soward.
Belle Centre	Mr. S. Drummond.
Bellefontaine	Dr. C. W. Heffuer.
Belleville	Dr. W. M. Ridenour.
Belpre	Di. W. M. Rideboul.
Bellevue	Mr. W. H. Benn.
Belmont.	Mr. David S. Pierce.
Belmore	Dr. G. B. Adrian.
Benton Ridge	
Berea	Mr. T. G. Card, Sec'y.
Berne	Dr. G. G. Mallett.
Berlin Heights	*****************************
Bethel	Dr. W. W. Smith.
Bettsville	Mr. Abner Bollinger.
Beverly	F. A Pomery
Blake's Mills	Mr. W. F. Reidenback.
Blanchester	Dr. N. B. Van Winkle.
Bloomingburg	Mr. L. Dellinger.

Bloom Centre Bloomdale Bloomfield (Bloomingdale P. O.). Bloomville Bluffton	Dr. O. C. Wilson. Mr. E. Wineland. Mr. E. R. Blackburn, Clk. Dr. E. H. Damon. Dr. F. J. Baldwin.
Bolivar	Mr. G. Perin.
Boston (Owensville P. O.) Botkins Bourneville Bowerston	Mr. Alleu Wical, Dr. D. S. Smith. Dr. E. E. McPeck.
Bradford	Mr. A. Ordway. Dr. H. M. Forman.
Bradner Bridgeport Brilliant	Mr. Peter Plantz. Dr. J. Andrew Heinlein. Dr. McDugall.
Brookfield	Mr. R. E. Stickney. Mr. W. E. Dunf rd.
Brookville	Mr. D. H. Cusick. Mr. J. K. Sierer.
Buckeye City	Mr. Nicholas Vineyard. Mr. T. R. Neldon. Mr. J. K. Butler.
Burbank Butler Butlerville	Dr. M. H. Dodd. Dr. J. M. McLaughlin.
Burton	Dr. B. T. Ray. Mr C. T. Barnett.
Cadiz Caldwell Caledonia	Dr. M. J. Lyons. Dr. O. O. McKee. Mr. J. W. Patten.
Calais	Mr. Josiah Thomas. Mr. I. A. Oldham.
Camden	Mr. John Whittaker. Mr. E. Amick. Mr. George Becker.
Canal Winchester. Canfield Cannelville ( Dillon's P. O.)	Dr. W. S. Gayman. Mr. A. D. Woods.
Cardington	Mr. S. C. Bennett. Dr. I. N. Zeis.
Carroll Carrolton	Dr. H. A. Brown. Dr. C. R. Zeigler. Mr. Harry Ross.
Casstown	Dr. T. D. Beach.
Cecil	Mr. H. L. Weaver. Mr. O. D. Kildow. Dr. L. P. Leslie.
Centerburg	Mr. A. T. Borden. Mr. W. H. Walters.
Chambersburg (Eureka P. O.) Chardon	Mr. F. S. Pomeroy.
Chatfield	Dr. C. D. McLeod. Dr. J. A. Penrose. Mr. John Gleason.
Chicago Junction	Dr. D. H. Young.
Clarington	Mr. John E. Morril. Dr. Z. T. Garland.

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Clarksburg	Da I T II Cond
Clearport Cleves	Dr. J. T. Hufford.
Clifton (Green Co.)	Dr. W. C. Hughes.
	Dr. D. E. Spahr.
Clinton	Mr. M. K. Glenn.
Cl\de	Mr. F. G. Tuttle.
Coldwater	Mr. F. G. Tuttle.
College Hill	Mr. E. F. Smith.
Collinwood	Dr. A. L. Waltz.
Columbiana	Mr. Geo. Roninger.
Columbus Grove	Mr. John K. Lafferty.
Commercial Point	Mr. W. A. Smith.
Congress	MII. W. II. OMICE.
Conneaut	Dr. D. S. Cossitt.
Continental	Mr. S. H. Bretz.
Convoy	Dr. R. L. Crooks.
Coolville	Dr. A. M. Frame.
Copley	Mr. O. E. Arnold.
Corning	Dr. G. W. DeLoug.
Cortland	Dr. K. W. Lynn,
Coshocton	Mr. J. E. Foster.
Covington	Mr. Geo. Flammer.
Crestline	Mr. A. J. Cover.
Creston	
Cridersville	Mr. C. H. Thomas.
Croton	Dr. G. M. Lyman.
Crown City	***************************************
Crooksville	Mr. W. C. Young.
Cumberland	Mr. Geo. B. McEndree.
Custar	Dr. M. Woeline.
Cuyahoga Falls	Mr. I. N. Reid.
Cygnet	Mr. James H. Ferguson.
Dalton	Mr. A. H. Arick.
Dallas	
Danville	Dr. C. R. Br. dfield.
Darbyville	Dr. C. R. Smith.
Deersville	Dr. Frank James,
DeGraff	Dr. L. D. Craig.
Delta	
	Dr. W. E. Ramsey.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh. Dr. L. H. Hughes.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh. Dr. L. H. Hughes. Mr. J. H. Lathrop.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh. Dr. L. H. Hughes. Mr. J. H. Lathrop. Mr. E. B. Mosely.
Delhi Dell Roy Delphos Dennison Deshler Dexter City Dillon's	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh. Dr. L. H. Hughes. Mr. J. H. Lathrop. Mr. E. B. Mosely. Dr. G. B. Trout.
Delhi	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh. Dr. L. H. Hughes. Mr. J. H. Lathrop. Mr. E. B. Mosely. Dr. G. B. Trout. Mr. Adam Cornwell.
Delhi Dell Roy Delphos Dennison Deshler Dexter City Dillon's Donnels /ile Doylestown	Dr. W. E. Ramsey. Mr. M. L. Andrews. Mr. Isaac Yant. Dr. J. M. Marsh. Dr. L. H. Hughes. Mr. J. H. Lathrop. Mr. E. B. Mosely. Dr. G. B. Trout. Mr. Adam Cornwell. Dr. A. E. Stepfield.
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Waverly	. Mr. Geo. D. Emmitt.
Waynesburg	Dr. E. G. McCormick.
Waynesfield.	Dr. Silas McPherson.
Waynesville	. Dr. W. E. Oglesbee.
Webster,	
Wellington	. Mr. M. W. Lang,
West Alexandria	Mr. L. J. Ashworth.
West Cairo	Dr. Geo. W. Henderson.
West Carrolton.	. Mr. James B. Manly.
West Chester	
West Elkton	
Westerville	
Western Star	
West Jefferson	. Dr. W. E. Postle.
West Leipsic	• • • • • • • • • • • • • • • • • • • •
West Leipsic	
West Liberty	Dr. R. M. Fulwider.
West Manchester	. Mr. David E. Allen.
West Mansfield	. Mr. M. Bozeman.
West Middleburg	
West Mill Grove	
West Milton	. Dr. Gainor Jennings.
West Salem	
Weston	
West Union	Dr. W. K. Coleman.
West Unity	. Mr. J. H. Tiddler.
West Wheeling	
Wheelersburg	
White House	. Dr. C. H. Ellis.
Wilkesville	

# STATE BOARD OF HEALTH.

Williamsburg, (Batesville P. O)	
Williamsport	
Windham	
Willoughby	Dr. E. G. Clark.
Willshire	
Wilmington	Dr. G. M. Austin.
Winchester	Dr. C. W. Salisbury.
Winton Place	
Woodsfield	
Woodstock	
Woodville	Mr. Samuel Crawford
Worthington	
Wyoming	Mr. A. M. VanDvke.
Yellow Springs	Dr. W. M. Haffner.
York	***************************************
Zanesfield	
Zaleski	
Zoar	

# **ANNUAL REPORTS**

**OF** 

# LOCAL BOARDS OF HEALTH

FOR THE

YEAR ENDING DECEMBER 31, 1896.

# OHIO STATE BOARD OF HEALTH. OFFICE OF THE SECRETARY. COLUMBUS, OHIO, December 31, 1896.

## To the Health Officer:

Section 2136 of the Revised Statutes of Ohio makes it the duty of the board of health to make a report to the State Board of Health on or before the first Mouday in March of each year: also to make such special reports as may be called for by said State Board.

It is more desirable in many ways that the annual reports should be made for the calendar year, and this is necessary in order that these reports may be published in the annual report of the State Board of Health; you are therefore respectfully requested to send your annual report as soon as possible after December 31, 1896.

Please answer the questions in regard to the sanitary condition of your city as fully as possible, and give such additional information as you deem proper.

An addressed envelope is enclosed for your reply.

Very respectfully,

C. O. PROBST, M. D., Secretary.



#### SANITARY CONDITION OF CITIES.

#### 4,000 POPULATION AND OVER.

- 1. Name of City.
- 2. Estimated population.
- 3. Water supply-
  - (a) Source.
  - (b) Average daily quantity used during the year.
  - (c) Sources of pollution.
  - (d) Changes recommended.

#### 4. Ice-

- (a) What proportion of the city's ice supply is taken from waters within or near city limits?
- (b) Is this supply liable to be contaminated?
- (c) What steps, if any, have been taken to prevent such contamination, or sale of such ice.

#### 5. Sewerage-

- (a) Give number of miles now in use.
- (b) Have you the combined or separate system of sewerage?
- (c) Give number of main outlet sewers.
- (d) Where do these sewers discharge, and into what body of water?
- (e) Estimated number of water-closets and privy vaults connected with the sewers.
- (f) What changes, or additions to sewerage system are needed?

#### 6. Night-soil.

- (a) Are water-tight vaults required?
- (b) Average frequency of cleaning privy vaults.
- (c) How is night-soil disposed of?
- (d) Are abandoned privy vaults allowed to be filled with earth without cleaning?
- (e) Are abandoned wells used for cess-pools or privies?
- (f) Estimated number of dry-earth closets in use.

#### 7. Garbage-

- (a) Give arrangements for removing garbage.
- (b) It at expense of city, give cost for 1896.
- (c) Requirements as to frequency of removal.
- (d) What disposition is made of the garbage?
- (e) If on land, does the city own or lease the land?

#### 8. Nuisances-

- (a) Number investigated during the year.
- (b) Number abated.
- (c) Number of prosecutions for failure to abate.
- (d) Number of prosecutions decided in favor of the board of health.

## 9. Milk inspection-

- (a) Number of milk inspectors employed.
- (b) Is a permit required to sell milk?
- (c) Is a record kept of the names, residence and place of business of all persons engaged in the sale of milk. (See section 2133 R. S.)
- (d) Are all dairies and dairy herds inspected that furnish milk to the city?
- (e) Number of samples of milk examined during the year.
- (f) Number fou d adulterated or below standard.
- 3 Ex. Doc. 12

- (g) Number of prosecutions for selling or offering for sale milk adulterated or below standard.
- (h) Number of cases decided in favor of the board of health.
- General recommendations as to sanitary improvements most needed in your city.

## MORTALITY STATISTICS FOR 1896.

Total No. Deaths.	Total from Contagious Diseases. (*See below)	Contagious Diseases. Total from Typhoid	Total from Tubercular Diseases.	Total from Diarrhœal Diseases.	Total from Malarial Discuses.

<sup>\*</sup>Under this head 'Contagious Diseases" include only Diphtheria, Membranous Croup, Scarlet Fever, Measles and Whooping Cough.

Please state whether you favor the enactment of a law providing for an annual levy for a sanitary fund in each city, village and township, to be under the exclusive control of their respective boards of health.

Signed:			
	••••••	Health	Officer.

- 1. AKRON.
- 2. 40.000.
- 3. (a) Summit Lake and wells.
  - (b) 3,000,000 gallons per day.
  - (c) Lake Erie and Ohio Canal.
- 4. (a) For domestic use nearly all artificial, and balance from lakes.
  - (b) Not as a rule-
  - 5. (a) Thirty and a half.
    - (b) Both
    - (c) One.
- (d) About 3,000 feet from N. Howard Street into Cuyahoga River.
  - 6. (a) Yes.
    - (b) Annually.
- (c) Have been collecting in air tight casks and then taken into country.
  - (d) No.
  - (e) No.
  - 7. (a) None. Collected by farmers.
    - (d) Food for hogs.
    - (e) No.
  - 8. (a) 560.
    - (b) 560.
    - (c) Two.
    - (d) Two.
  - 9. (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) As a general rule.
    - (e) 737.
    - (f) Four.
    - (g) None.
- 10. Garbage disposal.

Mortality statistics for 1896.—Total number deaths, 528; total from contagious diseases, 9; total from typhoid fever, 5; total from tubercular diseases, 61; total from malarial diseases, 8.

> DR. G. M. TODD. Health Officer.

- 1. ASHTABULA.
- 2. 15,000.
- 3. (a) Lake Erie.
  - (b) 1,000,000 gallons.
- (c) Streams emptying into the lake.
- (d) Intake moved west as far as city's west line at the least.
- 4. (a) About two-thirds part is cut from the river.

- (b) Ice taken from river is liable from sewage.
- (c) None, discussion is on as to whether the local board has power to prevent all cutting from the river.
  - 5. (a) About fourteen miles.
- (b) One sewer at harbor combined system, one up town that is a separate system.
  - (c) Two.
- (d) At the harbor the sewer discharges into Ashtabula River about one half mile from the end of the piers-the uptown sewer discharges into the same river about two miles from the end of piers where it runs into Lake Erie.
  - (e) 500.
- (f) More streets need sewers, the systems are not yet complete.
- 6. (a) Sewer connection, water tight receptacle and dry earth closet.
  - (b) Twice per year.
- (c) Composted and plowed under, removed to farms outside of city.

  - (d) No. (e) No.
  - (f) 2,000.
- 7. (a) Taken away in barrels by private parties.
- (c) Often enough to prevent becoming offensive.
- (d) Some fed to hogs with other feed and some composted.
- (e) City does not own. Scavengers furnish their own dump grounds.
  - 8. (a) 650.
    - (b) 600.
- (c) Two for violating rules of board.
  - (d) Two.
- 10. Extension of sewers and a system of collecting garbage. Board of Health should have power to remove all garbage and levy tax therefor.

DR. A. W. HOPKINS, Health Officer.

- 1. BELLAIRE.
- 2. 9,000.
- 3. (a) Ohio River.
- (c) Cities situated on Ohio River above Bellaire.
  - 4. (a) None for drinking purposes.

- (b) Yes.
- (c) None.
- 5. (a) Between nine and ten miles.
  - (b) Combined.
  - (c) Five.
  - (d) Iudian run and Ohio river.
  - (e) 530.
- 6. (a) Yes.
  - (b) Every three or four years.
- (c) Hauled away at night time and buried, outside of city limits.
  - (d) Yes.
  - (e) No.
  - (f) None.
- 7. (a) Every household removes their own garbage or hires it done.
- (c) As often as necessary to keep premises clean.
- (d) Taken outside of city limits and buried,
  - (e) No.
  - 8. (a) 83.
    - (b) 83.
    - (c) None.
  - 9, (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (g) None.
- 10. All privy vaults should be connected to sewer where possible, and thorough inspection of all plumbing.

Mortality statistics for 1896.—Total number deaths, 155; total from contagious diseases, 18; total from typhoid fever, 2; total from tubercular diseases, 26; total from diarrheal diseases, 8; total from malarial diseases, none.

DR, D. W. BOONE, Health Officer.

- 1. BELLEFONTAINE.
- 2. About 7,500.
- 3. (a) Over-flow wells and forced up through pipes to city wells; are about 170 feet deep, I think.
  - (b) 700,000 gallons.
- (c) I rom the dam above, used for overflow from pipes and to afford pressure in case of fire.
  - (d) A filter through which it

- should return to the supply pipes.
- 4. (a) Most of the ice used for domestic purposes is manufactured by the Hernice plant.
  - (b) This is not.
  - (c) None.
  - 5. (a) None, except 'Possum Run.
    - (b) No.
    - (c) None.
- (d) Almost all filth from the town finds its way into 'Possum Run, then to Bluejacket, then to Buckenghola and Miami River.
  - (e) Two hundred or more.
  - (f) An entire system.
  - (a) No.
- (b) When ordered by health officer.
- (c) Hauled to farms and scattered over the soil.
  - (d) No, not when known.
  - (e) No, except two.
  - (f) None.
- 7. (a) Hauled away in slop barrels.
  - (b) At the cost of individuals.
  - (c) Every day or two.
  - (d) The same as night soil.
  - (e) The land of farmers.
- 8. (a) 400.
  - (b) 300.
  - (c) None.
  - (d) None
- 9. (a) None.
  - (b) Yes.
  - (c) Yes.
- (d) Yes, but not likely as they should be; milk men are strictly honest.
  - (f) None.
  - (g) None.
  - (h) None.
- 10. A good system of sewerage would put us all right sanitarily.

Mortality statistics for 1896.—Total number of deaths, 83; total from contagious diseases, 6; total from typhoid fever, 3; total from tubercular diseases, 13; total from diarrhoeal diseases, 2; total from malarial diseases, 1.

I most certainly do.

Dr. C. W. HEFFNER Health Officer.

- 1. BROOKLYN.
- 2. 2,200.
- 3. (a) We all have wells of pure water.
  - (b) I cannot tell how much.
- 4. (a) About one-tenth part.
- (e) The city of Cleveland does not allow it to be used for drinking purposes.
  - 5. (a) Half mile.
    - (b) No.
    - (c) One.
    - (d) Into a big creek.
    - (e) None.
- (f) We need sewers and are going to commence to build them.
  - 6. (a) All are required to make vaults.
    - (b) Every year.
- (c) Carted away in tight barrels and taken in the country about two miles from corporation line.
  - (d) There are not.
- (e) They are not allowed to use them.
  - 7. (a) None.
    - (c) Once per year.
- (d) Taken out on some farm by farmers.
  - (e) No, farm property.
  - 8. (a) 34.
    - (b) 31.
    - (c) None.
    - (d) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) Inside of corporation.
    - (e) None.
    - (f) None.
    - (g) None.
    - (h) None.
- We need lake water and more sewerage.

Mortality statistics for 1896.—Total from contagions diseases. 1; total from typhoid fewer, 1.

R. E. STICKNEY, Health Officer.

- 1. BUCYRUS.
- 2. 7,000.
- 3. (a) For domestic use is obtained from wells, and remainder of supply for other uses from water works.

- (b) From works was 450,000 gallons.
- (d) The water works obtain their supply from Sandusky river, it being polluted by sewage of Crestline, but same is well filtered before being sent out from water works.
- (d) The water company expect to add additional filters, and build a large reservoir for fire protection during dry season.
  - 4. (a) All of it.
- (b) No, it is obtained from springs and wells.
- (c) When taken from the river it is sold "for cooling purposes only," painted on wagons in large letters.
  - 5. (a) 12.
    - (b) Combined.
    - (c) Four.
    - (d) Into Sandusky river.
    - (e) 200 indoors and 300 outside.
- (f) Better flushing, intercepting sewer, and sewage disposal.
- 6. (a) Yes, but very few are (strictly speaking) water tight.
  - (b) Once a year.
- (c) Buried in trenches on city dumping ground, at a depth of 3 feet and covered.
- (d) No, must be cleaned first and filled with earth before permit is granted to change location.
  - (e) No.
- (f) None, but 100 drawers are in use.
- 7. (a) One wagon is in use daily in summer and twice a week in winter.
- (b) \$25.00 per month, for one horse wagon and man.
- (c) If an unusual amount of garhage at grocery stores, they pay extra, and it is removed by scavenger twice a day or as board of health directs.
- (d) Taken outside corporation on farm and buried.
  - (e) Do not.
  - 8. (a) About 200.
- (b) All satisfactorily to those concerned.
  - (c) None.
- 9. (a) Two, health officer and sanitary police.
  - (b) Yes, we issue a milk certificate.
  - (c) Yes.



- (d) Yes, once a month by inspectors.
  - (e) About once a week.
  - (f) None.
  - (g) None.
- 10. An intercepting sewer and sewage disposal works.

Mortality statistics for 1896.—Total number deaths, 95; total from contagious diseases, 14; total from typhoid fever, 5, total from tubercular diseases, 16; total from darrhœal diseases, 2; total from malarial diseases, 1.

Yes.

DR. W. A. DAUGHERTY, Health Officer.

- 1. CAMBRIDGE.
- 2. 8,000.
- 3. (a) Wells.
  - (b) Water works just completed.
  - (c) None.
- 4. (a) A very small proportion, taken from a pond, water supply from springs.
  - (b) No.
  - (c) No need.
  - 5. (a) Have no sewerage.
- (f) A sewerage system is needed very much.
- 6. (a) Vaults or dry earth closet at option of applicant.
  - (b) Two or three times a year.
  - (c) In pits under cover.
  - (d) No.
  - (e) No.
  - (f) Three hundred.
- 7. (a) In covered vessels by property owners.
  - (c) Before it becomes offensive.
- (d) Garbage that putrefies goes to night-soil pit and is treated with lime and dry earth.
  - (e) Land for pits leased.
  - 8. (a) One hundred and thirty-five.
    - (b) One hundred and fifteen.
    - (c) Six.
    - (d) Six.
- 9. (a) Rules for inspection of milk go in force January 18, 1897.
  - (b) Yes.
  - (c) There will be.
  - (d) They will be.
  - (g) None.

- (h) None.
- 10. Want of sewerage.

Mortality Statistics (from April 1, 1896).—Total number of deaths, 85; total from contagious diseases, 9; total from tubercular diseases, 18; total from diarrhœal diseases, 7; total from malarial diseases, 2.

Yes.

I. A. OLDHAM, Health Officer.

- 1. CANTON.
- 2. 38,000.
- 3. (a) From creek and artesian wells.
  - (b) 2,989,141 gallons.
- (c) Any pollution which may contaminate creek. Surface water pollution.
- (d) That present water supply outside artesian well water be abandoned, and that instead of surface water, artesian and spring water be used.
- 4. (a) None of any consequence. Principally distilled water.
  - (b) No.
  - (c) None.
  - 5. (a) 1,831.
    - (b) Separate.
    - (c) One.
- (d) Into sewage disposal works, where precipitation method of disposal is used.
  - (e) Don't know.
  - (f) None.
  - 6. (a) No.
    - (b) Whenever within 4 feet of top.
- (c) Any not accommodated in sewers is hauled out on land outside city limits.
  - (d) No.
  - (e) No.
  - (f) None.
- 7. (a) No arrangements made by city. Individuals arrange for disposal with men who haul it away.
  - (b) None.
  - (c) Whenever offensive.
- (d) Hauled away—Generally outside city.
  - (e) No.
  - 8. (a) 510.
    - (b) About 500.
    - (c) None.



- (d) None.
- 9. (a) One.
  - (b) Yes.
  - (c) Yes.
  - (d) No.
  - (e) 129.
- (f) Seven adulterated. None below standard.
  - (g) Seven for adulteration.
  - (h) All convicted-7.
- 10. Building of a garbage furnace, sewering Shriver's run, hiring of a patrolman to make regular trips for inspection of creek, and report findings to Board of Health.

Mortality Statistics for 1896.—Total number of deaths, 320; total from contagious diseases, 34; total from typhoid fever, 17; total from tubercular diseases, 23; total from diarrhoeal diseases, 10. Yes.

J. F. MARCHAND, M. D, Health Officer.

- 1. CHILLICOTHE.
- 2. 15,000.
- 3. (a) Wells and Scioto River.
  - (b) 700,000 gallons.
  - (c) None.
  - (d) None.
- . 4. (a) Only a small amount, mostly from artificial ice plant.
  - (b) Yes.
  - (c) None up to date.
  - 5. (a) None.
    - (b) No.
    - (c) None.
    - (d) None.
    - (e) None.
  - 6. (a) Yes.
    - (b) Twice a year.
- (c) Taken outside city limits and used as manure by certain farmers.
  - (d) No.
  - (e) No.
  - (f) None that I know of.
- 7. (a) The Board simply employs men with horse and open cart. Such number is employed as will remove all garbage.
- (b) It is at expense of city. Cost \$2,327.33.
  - (c) Carts go over their respective | feet of surface.

territory every morning and remove the garbage.

- (d) Carted outside city limits and partly burned. Balance used as manure
  - (e) Simply lease the land.
  - 8. (a) About 722.
    - (b) Nearly all of above.
    - (c) None.
- 9. (a) No one. Health officer acts in this capacity.
  - (b) Yes.
  - (c) Yes.
  - (d) Yes, to a certain extent.
  - (e) About one hundred.
  - (f) About twelve.
- (g) None. Dealers never repeated the adulteration a second time.
- Complete system of sanitary sewerage.

Mortality Statistics for 1896.—Total number of deaths, 199; total from contagious diseases, 11; total from typhoids fever, 8; total from tubercular diseases, 25; total from diarrhœal diseases, 9; total from malarial diseases, 3.

Yes, indeed.

C. S. McCafferty, M. D., Health Officer.

- 1. CINCINNATI.
- 2. 405,000.
- 3. (a) Ohio river.
  - (b) 44,733,923 gallons.
- (c) Sewage—street drainage east of intake.
- (d) Entire new water works with complete filtration system.
  - 4. (a) Thirty per cent.
    - (b) Very little if any.
- (c) None other than to exercise a close supervision over the source.
  - 5. (a) 205 miles.
- (b) 175 miles combined and 30 miles separate.
- (c) Eight main outlets and twen.y minor outlets.
- (d) Into the Ohio river and Mill creek.
  - (e) 16,000.
  - (f) Many additions are needed.
  - 6. (a) Yes.
- (b) Whenever they are within four feet of surface.

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- (c) The night soil is dumped in the Ohio river.
  - (d) No.
  - (e) Yes.
  - (f) 100.
  - 7. (a) Removed by city wagon.
    - (b) \$21,583.31.
- (c) 7,3,2 and 1 times weekly depending on season and district.
- (d) Converted into grease and tankage utilization system.
  - 8. (a) 13,740.
    - (b) 13,740.
    - (c) None.
    - (d) None.
  - 9. (a) Two.
    - (b) Yes.
      - (c) Yes.
      - (d) Yes.
      - (e) 892.
      - (f) About eight per ceut.
      - (g) Eleven.
      - (h) Eleven.

Mortality statistics for 1896.—Total number deaths, 5,916; total from contagious diseases 313; total from typhoid fever, 164; total from tubercular diseases, 736; total from diarrhocal diseases, 131; total from malarial diseases, 38.

J. W. PRENDERGAST, M. D. Health officer.

- 1. CIRCLEVILLE.
- 2, 7,000.
- 3. Darby creek it is about two miles from the city.
  - (b) Do not know.
- (c) None whatever unless it would come from river, we have had water examined and found good by the Starling Medical College expert.
  - (d) None.
- 4. (a) All is taken from canal west of river.
- (b) Not from any stream of water it lies higher than all others.
  - (c) None.
  - 5, (a) One mile.
    - (b) Just common sewer.
    - (c) One.
- (d) Scioto river not direct but it discharge into an open ditch which empties

into river about 1,000 feet from mouth of sewer.

- (e) Twenty-five.
- (f) We need an extra system of sewerage for city with no propect of getting it.
  - 6. (a) No.
    - (b) About twelve times.
- (c) Hauled out of the corporation onto farms and covered up.
  - (d) Yes.
  - (e) Very few.
  - 7. (a) None.
    - (b) None.
    - (c) None.
- (d) What is hauled out is on land owned by farmers who give their consent.
  - (e) No.
  - 8. (a) 342.
    - (b) About 300.
    - (c) None.
    - (d) None.
  - 9. (a) None.
    - (b) None.
- (d) Not been inspected but they have good healthy stock and good care.
  - (e) None.
  - (f) None.
  - (g) None.
  - (b) None.

10. A perfect system of sewerage is the only thing that is needed for our city.

Mortality Statistics for 1896.—Total number deaths, 121; total from contagious diseases, 3; total from typhoid fever, 7; total from tubercular diseases, 21; total from diarrhœal diseases, 3; total from malarial diseases, 2;

Most certainly we do.

W. F. TOLBERT. Health officer

- 1. CLEVELAND.
- 2, 350,000.
- 3, (a) Lake Erie.
  - (b) 10,991,835 gallons ('95)
- (c) Cuyahoga River. All the sewage of the city; also all the night soil which is dumped out in the lake.
  - (d) None as we are perfecting the

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same at this writing by a new in take farther out and east of the city also by new intercepting sewer.

- 4. (a) None except small quantity for cooling purposes only.
  - (b) Yes and is.
- (c) A city ordinance as per Exhibit "A" attached hereto which we had passed and improvements as above.
  - 5. (a) 234 miles.
    - (b) Separate.
    - (c) Nine.
- (d) Foot of the main streets ending at the lake front or river. Discharge into Lake Erie eventually.
  - (e) 30,000.
- (f) None except that which is in process of construction.
  - 6. (a) Yes.
    - (b) Yearly.
- (c) Dumped into Lake Erie ten miles out from shore and east of mouth of Cuyahoga river.
- (d) No—City ordinance prohibits.We enforce this ordinance strictly.
- (e) No—Forbidden by city ordinance which we strictly enforce.
  - (f. 10,000,
- 7. (a) None except removed to garbage boat and dumped into lake at expense of individual householders. Will have good garbage plant in operation soon.
- (b) \$40 per week for use of garbage boat,
- (c) Whenever sanitary officers think necessary.
- (d) Dumped into garbage boat and from that into Lake Erie.
  - 8. (a) 107,128.
    - (b) 88,037.
    - (c) Twenty-nine.
    - (d) Twenty-nine.
- 9. (a) Two good chemists and two officers to assist.
  - (b) Yes. One dollar per annum.
- (c) Yes we keep a very comprehensive record.
- (d) Those in city limits yes. Outside some, very small number.
  - (e) 5,160.
  - (f) 563.
- (g) Six raising standard of milk very high.

- (h) Fours
- 10. Have been made and are being perfected.

Mortality statistics for 1896.—Total No. deaths, 4,859; total from contagious di-eases, 289; total from tyyhoid fever 147; total from tubercular diseases, 169; total from diarrhœal diseases, 380; total from malarial diseases, 17.

Yes and we have it. '95 for '96 expenses \$.00027 per dollar giving us \$36.331.98 and licenses \$5,000.00.

J. L. HESS. M. D. Health Officer.

- 1. COLUMBUS.
- 2. 100,000.
- 3. (a) River and wells; the latter are both public and private. East Side Station, the public wells.
  - (b) Twelve million gallons.
- (c) The banks of the river, sewage of small towns and the soil saturated with city dirt, wherever the private wells are dug.
- (d) Dams in the river to retain water and filtering beds and abolition of private wells.
- 4. (a) I estimate that in cold seasons one half is taken from ponds and river.
- (b) Yes, the same kind of contamination to which the river water is exposed.
  - (c) No.
  - 5. (a) Can not at this time.
- (b) Combined except on west side, which are partly separate.
  - (c) There are five main outlets.
- (d) The East side sewer discharges into Alum creek. The rest into the Scioto river.
- (e) I think there are something over 14,000.
- (f) For final disposal a filtration plant for the East side sewer and the same for the intercepting and West side sewers.
  - 6. (a) Yes.
    - (b) Once a year in most cases.
- (c) It is carried to the country and buried in the soil.
  - (d) No.
  - (e) No.



- (f) I know of none.
- 7. (a) Removed in tanks by private contract; 6,727.5 tons have been removed since April 15, 1896.
  - (b) \$15,800.
- (c) In central portion of city daily; outside twice a week.
- (d) It is reduced by tanking fat extracted by pressure; the rest so far has not been utilized.
  - (e) The company owns the land.
  - 8. (a) 12,928.
    - (b) 12,440.
    - (c) Twenty-five.
    - (d) Twenty-five.
  - 9. (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) Not all only a few so far.
    - (e) 339.
    - (f) Sixteen.
    - (g) None.
- 10. Filtration plants for sewage improved water supply. Extension of service in milk and dairy inspections etc.

Mortality statistics for 1696.—Total No. deaths, 1,370; total from contagious diseases, 53; total from typhoid fever 49; total from tubercular diseases, 253; total from diarrhœal diseases, 69; total from malarial diseases, 5.

D. N. KINSMAN, M. D. Health Officer.

- 1. DAYTON.
- 2. 85,000.
- 3. (a) Holly system and drove wells. About three-fourths of population use well water.
  - (b) No means of estimating.
- (c) None excepting from surface water obtained from shallow wells,
- (d) None save such as has been ordered by the board of health, "Driving tube wells 45 feet deep."
- 4. (a) It is all so taken. Some manufactured.
  - (b) No.
  - 5. (a) Forty-two.
    - (b) Separate.
    - (c) One.
    - (d) Miami river.
    - (f) None.

- 6. (a) No.
  - (b) Five years.
  - (c) Cremated.
  - (d) Never.
  - (e) Never.
  - (f) None.
- 7. (a) By water tight wagon beds.
  - (c) Varies from one to seven days.
  - (d) Cremated.
- 8. (a) Number of inspections, 22,146.
  - (b) Miscellaneous abated, 314.
  - (c) One.
  - (d) One.
- 9. (a) None.
  - (b) No.
  - (c) No.
  - (d) No.
  - (e) Six.
  - (f) Four.
  - (g) None.
  - (h) None.
- 10. More money appropriated; deeper wells; abandonment of open vaults; milk inspector; live stock inspector bacteriologist; connection of all closets with the sanitary sewer.

Mortality statistics for 1896.— Total number of deaths, 1,026; total from contagious diseases, 84; total from typhoid fever, 21; total from tubercular diseases, 129; total from diarrhœal diseases, 37; total from malarial diseases, 3.

I do.

Dr. A. H. IDDINGS, Health Officer.

- 1. DEFIANCE.
- 2. 10,000.
- 3. (a) From Maumee and Auglaize rivers.
  - (b) 988,346.
  - 4. (a) All.
    - (b) Yes.
    - (c) None.
  - 5. (a) Eight miles.
    - (b) Yes.
    - (c) Eight.
    - (d) Maumee and Auglaize rivers.
    - (e) One hundred and fifty.
    - (f) None.
  - 6. (a) Yes.
    - (c) In tight barrels.
    - (d) No.

- (e) No.
- (f) One.
- 7. (a) City employs a scavenger.
  - (b) \$462.
  - (c) Daily.
- (d) Hauled beyond the corporate limits of the city and there burned.
  - (e) No.
  - 8. (a) One hundred and fifty.
    - (b) One hundred and forty-eight.
    - (c) None.
    - (d) None.
  - 9. (a) One.
  - (b) Yes.
    - (c) Yes.
    - (c) res.
    - (d) Yes.
    - (e) Ten.
    - (f) About one-half.
    - (g) One.
  - (h) One.
- 10. The removal of stock yards and the Standard oil tanks.

Mortality statistics for 1896.— Total number deaths, 83; total from contagious diseases 5; total from typhoid fever, 2; total from tubercular diseases, 18; total from malarial diseases. 3.

Dr. P. H. ALDRICH, Health officer.

- 1. DELAWARE.
- 2. 9,000.
- 3. (a) Wells owned by Delaware Water Co. Private wells.
  - (b) 300,000 to 350,000 gallons.
  - (c) None.
  - (d) None.
  - 4. (a) All.
    - (b) Yes.
    - (c) None.
  - 5. (a) No general sewerage.
    - (b) Separate.
    - (c) Three (from private sewers).
- (d) The three private sewers discharge into the Olentangy river.
  - (e) Three.
  - (f) We need general sewerage.
  - 6. (a) Yes.
    - (b) Monthly.
- (c) Night soil is buried on land leased by the city.
  - (d) No.
  - (e) No.

- (f) Four hundred.
- 7. (a) No arrangement.
  - (b) No expense.
  - (c) No requirements.
- (d) Private parties remove garbage at expense of property owners.
  - 8. (a) Ten.
    - (b) Ten.
    - (c) None.
    - (d) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (g) None.
    - (h) None.
  - Sewerage.Yes.

Dr. E. M. SEMANS, Health Officer.

- 1. DELPHOS.
- 2. 4.500.
- 3. (a) Wells; we now have a system of water works nearly completed. The water supply will be from wells.
  - 4. (a) All.
    - (b) No.
  - 5. (a) About 6 miles.
    - (b) Combined.
    - (c) Three.
- (d) They discharge into small creeks.
  - (e) None.
- (f) The capacity of some of the main lines is not sufficient. There should be further extension of lines in some parts of the city.
  - 6. (a) No.
    - (b) Probably every two years.
- (c) It is hauled into the country and buried in the soil.
  - (d) No.
  - (e) No.
  - (f) None.
- 7. (a) It is removed by men who use it for fattening hogs.
  - (b) None.
  - (c) Twice a week in summer.
- (d) It is used for feeding hogs by those removing it.
  - (e) The garbage and trash not fit

for feed is taken to dump grounds owned by the city.

- 8. (a) Probably 200 mainly privy vaults.
  - (b) About 200.
  - (c) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) **No**.
    - (e) None. (f) None.
    - (g) None.
- 10. Additional sewers and improvement in privy vaults.

Mortality statistics for 1896.—Total number deaths, 47; total contagious diseases, 7; total from typhoid fever, 2; total from tubercular diseases, 5; total from diarrhœal diseases, 2; total from malarial diseases, none.

Yes.

Dr. J. M. Marsh, Health Officer.

- 1. EAST LIVERPOOL.
- 2. 15,000.
- 3. (a) Ohio River.
  - (b) 1,500,000 gallons.
- (c) Sewerage from all cities situated on the Ohio above this point, and on the Monongahela, Allegheny, Youghiheny and Beaver rivers including cities of Pittsburg and Allegheny, Pa.
- (d) That the U. S. government take charge of the matter and prohibit the use of these rivers as sewer outlets.
  - 4. (a) None during 1896.
  - 5. (a) About 12 miles.
    - (b) Separate system.
    - (c) Two.
    - (d) Ohio River.
- (e) 567 houses are connected with sewer system.
  - (1) Need district No. 2 sewered.
  - 6. (a) Yes.
- (b) Whenever contents are within four or five feet of top of vault.
  - (c) Dumped into Ohio river.
  - (d) No.
  - (e) No.
  - (f) None.

- 7. (a) By private arrangements with local expressmen and teamsters.
- (b) None—except during summer months when it must be removed once or twice a week.
  - (c) Dumped into Ohio river.
  - . (a) One.
    - (b) Case withdrawn.
    - (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) No. (e) 41.
    - (f) None.
    - (g) None.
- 10. That sewer district No. 2 be sewered. That some means be provided for the disposal of all garbage and night soil so that it will not be thrown into the river.

Mortality statistics for 1896.—Total number deaths, 167; total from contagious diseases, 16; total from typhoid fever, 12; total from tubercular diseases, 27; total from diarrhoeal diseases, 8; total from malarial diseases, none.

Yes.

C. B. OGDEN, M. D., Health Officer.

- 1. ELYRIA.
- 2, 9,500.
- 3. (a) Public or fire protection; Black river; domestic wells and cisterns.
  - (b) Not known.
- (c) Sewers emptying into river; wells liable to pollution from night soil and house slops.
- (d) The city expects to get water supply from Lake Erie within present year. Property owners should be required to connect water closets with sewers when latter are within reasonable distance.
- 4. (a) At least three-fourths; the larger part used by saloons and meat markets.
- (b) Yes, by sewage emptyied into river.
- (c) None -except public have been warned by circular from health officer against using this ice for domestic purposes in house refrigerators and drinking water.



- 5. (a) Eight and three-tenths.
  - (b) Combined.
  - (c) Twenty-one.
- (d) On bluff banks and into Black river.
  - (e) Two hundred and forty-four.
- (f) There should be an intercepting sewer connecting all the sewers into one trunk sewer and carried to sewage farm below the city, but not able to do it at present.
- 6. (a) Yes, for all new ones. The most of the privies have earth pits, some boxes and pails.
- (b) Vaults at least once every year, others monthly or oftener.
- (c) Scavenger collects and taken to city dump ground where it is composted with earth in pits.
  - (d) No.
  - (e) No.
  - (f) Nine hundred and eighty-three.
- (a) Swill is collected by farmers. Other garbage collected by scavenger and composted with night soil. Rubbish burned on dump ground.
- (b) No cost to city, paid by individuals.
- (c) To be kept in barrels convenient of access for scavenger and removed with night soil.
- (d) Composted with night soil in pits on city dump ground except what is burned.
  - (e) City owns the land,
  - 8. (a) Seven.
    - (b) Seven.
    - (c) One.
    - (d) One.
  - 9. (a) None.
    - (b) No.
- (c) No. our board has never taken any action regulating milk traffic.
  - (d) No.
  - (e) None.
  - (f) None examined.
  - (g) None.
  - (h) None.
- 10. More sewers and compulsory connection therewith in business and thickly populated districts of city-second, an abundant and wholesome water supply.

Mortality statistics for 1896.—Total

number deaths, 102; total from contagious diseases, 4; total from typhoid fever, 2; total tubercular diseases, 17; total from diarrhoeal diseases, 8; total from malarial diseases, none.

Yes.

### W. F. MCLEAN, M. D. Health Officer.

- 1. FINDLAY.
- 2. 20,000.
- 3. (a) Blanchard river.
  - (b) 942,734 gallons.
- (c) None except the natural sources of pollution along a country stream.
  - (d) None.
  - 4. (a) All of it.
    - (b) No.
- (c) The ice has been analyzed and found to be pure.
  - 5. (a) None built in 1896.
    - (b) Combined.
    - (c) Four.
- (d) Blanchard river and Eagle creek.
  - (e) About four hundred.
- (f) A complete new system in the main part of city-that part south of river 6. (a) No.
- (b) Once a year.
- (c) By removing outside of city limits and burying.
  - (d) No.
  - (e) No.
  - (f) A good many.
- 7. (a) Garbage is removed by men regularly in the business and when neglected is removed by order of the health officer.
  - (b) No.
- (c) Three times a week in summer and once a week in winter.
  - (d) Burned at crematory.
  - (e) No.
  - 8. (a) Twelve hundred.
    - (b) All of them.
    - (c) Sixteen.
    - (d) All of them.
  - 9. (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) Yes.

- (e) No, tests made only with lactometer.
  - (f) None.
  - (g) None.
  - (h) None.
- 10. A good sewer system on the south side of river.

Mortality statistics for 1896.—Total number of deaths, 260; total from contagious diseases, 14; total from typhoid fever, 5; total from tubercular diseases, 33; total from diarrhœal diseases, 32; total from malarial diseases, 1.

Yes.

Amos Beardsley, Health Officer.

- 1. FOSTORIA.
- 2. 10,000.
- 3. (a) Branch of Portage river.
  - (b) 544,900 gallons.
  - (c) None.
  - (d) None.
- 4. (a) All or nearly so.
  - (b) No.
  - (c) None.
- 5. (a) Twenty-six miles.
  - (b) Combined by district system.
  - (c) Two.
  - (d) Portage river below city.
  - (e) 235.
  - (f) None.
- 6. (a) Yes.
  - (b) Once a year.
- (c) Hauled on farm and prepared for fertilizer.
  - (d) No.
  - (e) No.
  - (f) 900.
- 7. (a) Hauled to outside corporate limits onto farm property.
  - (b) Eleven hundred and ten dollars.
  - (c) Daily.
- (d) Hauled to farm outside corporate limit and rough garbage burned.
  - (e) Neither.
  - 8. (a) Twelve hundred.
    - (b) All.
    - (c) None.
    - (d) None.
  - 9. (a) One.
    - (b) Yes.

- (c) Yes.
- (d) Yes.
- (e) Daily inspection.
- (1) None.
- (g) None.
- (h) None.
- 10. None whatever.

Mortality statistics for 1896.—Total number deaths, 59; total from contagious diseases, 5; total from typhoid fever, 3; total from tubercular diseases, 21; total from diarrhœal diseases, 4; total from malarial diseases, 26.

No.

J. O. HESS, Health Officer.

- 1. GALION.
- 2. Eight thousand five hundred. (8,500.)
- 3. (a) Driven wells, water works, also dug wells.
- (b) Two hundred thousand gallons from water works.
  - (c) Pickel run.
  - (d) Sewerage in the houses of city.
- 4. (a) Largest per cent. of manufactured ice. Balance reservoir ice and creek ice.
  - (b) No.
  - (c) None.
  - 5. (a) Three and one-half miles.
    - (b) Combined 2,400 feet.
    - (c) One.
    - (d) Whetstone creek.
    - (e) Forty.
- (f) To drain Pickel run, under the city's care.
  - 6. (a) Yes.
    - (b) Once a year.
- (c) Hauled to the farm lands in the country and buried.
  - (d) No.
  - e) No.
- (f) Smead's system in school buildings.
  - 7. (a) To haul away daily.
    - (b) No expense to city.
    - (c) Daily if necessary.
- (d) Hauled to the dumping grounds outside of the city.
  - (e) Leased.
  - 8. (a) Sixty-two.

- (b) Sixty-two.
- (c) None.
- (d) No prosecutions.
- 9. (a) None.
  - (b) No.
  - (c) No.
- (d) Principally all and found in good condition.
  - (e) None.
  - (g) No prosecutions. None.
  - (h) No cases to decide. None.
- 10. Sewerage which is under way for the coming summer.

Mortality statistics for 1896.—Total number deaths, 83; total from contagious diseases, 13; total from typhoid fever, 2; total from tubercular diseases, 7; total from diarrhœal diseases, none; total from malarial diseases, 2.

Yes.

A. BROKAW, Health Officer.

- 1. HAMILTON.
- 2, 22,000.
- 3. (a) Driven wells.
  - (b) 1,500,000 gallons.
  - (c) None.
  - (d) None.
- 4. (a) 30 per cent.
  - (b) It is river water.
  - (c) None.
- 5. (a) 17 miles.
  - (b) Separate system.
  - (c) Three.
- (d) Below the city limits into the Miami river.
  - (e) 181.
  - (f) None.
  - 6. (a) No.
- (c) Taken out of city limits and buried.
  - (d) No.
  - (e) Not to my knowledge.
  - (f) None.
- 7. (a) Garbage and ashes are collected in same vessel and taken to the city dump.
- (b) To \$6,900 for removal only must be added \$1,500 for covering garbage, ashes, etc., in city dump, making a total of \$8,400.
  - (c) At least twice a week.

- (d) It is dumped with ashes, etc., and then covered.
- (e) The city is granted the privilege as long as same is covered.
  - 8. (a) No record.
    - (b) No record.
    - (c) None.
    - (d) None.
  - 9. (a) One.
    - (b) No.
    - (c) No.
    - (d) No.
- (e) No record, December, 96—4 examined.
  - (f) One below standard.
    - (g) None.
    - (h) None.

Yes.

Dr. J. S. H. Potter, Health Officer.

- 1. IRONTON.
- 2. 12,000.
- 3. (a) Ohio river, many use cisterns.
- (b) 1,600,000 gallons a day from water works.
- (c) Privy vaults and few sewers emptying into river about water works.
  - (d) Are closing all such places.
- (c) Board of Health now considering means to totally eradicate it.
- 4. (a) Artificial ice mostly used, some brought from the lakes.
- (b) No (except by ammonia and cresote from ice factory)
- 5. (a) Brick main sewer  $1\frac{1}{2}$ , local mains  $2\frac{1}{2}$ . Total four miles.
  - (b) Combined.
  - (c) One.
  - (d) Ohio river.
- (e) About 250 water closets—vaults not permitted to be connected with sewers.
- (f) General extension, all now under way for part of the city.
  - 6. (a) No. Dig down to gravel.
- (b) When contents come within three feet of surface.
- (c) Carried out of the city and dumped in country.
  - (d) Clean down three feet, then fill.
  - (e) No.
  - (f) Very few.

- 7. (a) Ordinary city garbage carts.
  - (b) \$497.96.
- (c) Every day if possible, carts taken off several months ago. No funds.
  - (d) Removed to city dump.
  - (e) Yes.
  - 8. (a) Predecessor lost records.
  - 9. (a) None,
    - (b) Yes.
    - (c) Yes.
    - (d) No.
    - (e) None.
    - (g) None.
- 10. Sewer the city and close all privies on river bank above water-works not having vaults. Part of the city already sewered.

Mortality statistics for 1896.—Total number deaths, 237; total from contagious diseases, 16; total from typhoid fever, 8; total from tubercular diseases, 25; total from diarrhœal diseases, 9; total from malarial diseases, 1.

GILMAN R. DAVIS, M. D. Health Officer.

- 1. JACKSON.
- 2. 6,000.
- 3. (a) Wells and cisterns.
- 4. (a) Consume manufactured ice.
  - (b) No.
- 5. (a) No sewerage.
- 6. (a) Have not been but are now.
  - (b) Cleaned when necessary.
- (c) Carted outside of city limits in water tight vessels.
  - (d) No,
  - (e) No.
  - (f) About 5 per cent.
  - 7. (a) Removed by the city.
- (b) Being done by the city, we have no means of knowing.
  - (c) Removed when necessary.
  - (d) All offensive matter is buried.
  - (e) Lease the land.
  - 8. (a) No account has been kept.
    - (b) All that have been reported.
    - (c) Two.
  - (d) **Two**.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.

- (e) None.
- (f) None.
- 10. Water work and sewerage.

Mortality statistics for 1896.—Total number deaths, 97; total from contagious diseases 14; total from typhoid fever, 3; total from diarroeal diseases, 5; total from malarial diseases, 1.

Yes.

W. H. WILLIAMS, Health Officer.

- 1. KENTON.
- 2. 8,000.
- 3. (a) Artesian wells.
  - (b) About 750,000 gallons.
  - (c) None.
- 4. (a) All.
  - (b) No.
- 5. (a) About eight miles.
  - (b) Combined system.
  - (c) Five.
  - (d) Scioto river.
- (e) About all connected within sewer district.
  - (f) None.
- 6. (a) In sewer district, yes; where not in district, no.
  - (b) Whenever necessary.
- (c) Hauled out of city limits and covered with earth,
  - (d) Yes.
  - (e) No.
  - (f) About 500.
- 7. (a) Garbage is removed with a one horse wagon.
  - (b) \$448.63.
- (c) Every day from May 1, to December 1.
- (d) Is hauled out of city limits and burned.
  - (e) The city leases the land.
  - 3. (a) Do not allow any.
  - 9. (a) Have none.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (g) None.
    - (h) None.
- None.
   Mortality statistics for 1896—Total from contagious diseases, 13.

Total number of cases of scarlet fever, 42.

Total number of deaths from scarlet fever none.

Total number of diphtheria cases, 82. Total number of deaths from diphtheria, 13.

Yes.

C. J GRIFFITH, Health Officer.

- 1. LIMA.
- 2. 22,000.
- 3. (a) Supposed spring water. Surface and deep wells for deficiency.
  - (b) 1,250,000 gallons.
- (c) None except possibly some surface drainage.
  - (d) None.
  - 4. (a) Almost all.
    - (b) Not especially.
    - (c) None.
  - 5. (a) About 20 miles,
    - (b) Combined.
    - (c) Sixteen.
    - (d) Ottawa river.
    - (e) Impossible.
    - (f) A complete system.
  - 6. (a) No.
    - (b) About every twelve months.
    - (c) Buried at city garbage grounds.
    - id) Yes, but not supposed to.
    - (e) No.
    - (f) Three-fourths of all, possibly.
- 7. (a) Done by the one that has the garbage, not by the city.
- (c) As often as it is necessary from accumulation.
- (d) Deposited at city dump grounds, burned or buried as easiest to accomplish.
  - (e) Lease.
  - 8. (a) 350.
    - (b) 278.
    - (c) None.
  - 9. (a) None.
    - (!) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (f) None.
    - (g) None.
    - (h) None.
- 10. Removal of ashes, paper, etc., from
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streets and alleys and cremating to dispose of rubbish instead of burying same.

Mortality statistics for 1896,—Total number of deaths, 299; total from contagious diseases, 7; total from typhoid fever, 13; total from tubercular diseases, 43; total from diarrhoeal diseases, 37; total from malarial diseases, 3.

Yes.

Dr. L. F. LAUDICK, Health Officer.

- 1. LORAIN.
- 2. 10,000.
- 3. (a) Lake Erie.
  - (b) 2,000,000.
- (c) Sewage emptying into Black river and reaching intake.
  - (d) Sewage purification.
  - 4. (a) Three-fourths.
    - (b) It is.
    - (c) None.
  - č. (a) Twelve and one-half.
    - (b) Both.
    - (c) Two.
- (d) One near mouth of river and one about three miles from mouth.
  - (e) 520.
- (f) Need about twenty miles more sewerage and sewage disposal.
- 6. (a) New vaults must be water tight.
  - (b) When necessary.
- (c) Taken away and mixed with earth or plowed under.
  - (d) Yes.
  - (e) No.
  - (f) Don't know.
- 7. (a) Contract is let in April for moving garbage for season with specifications as to disposal, etc.
  - (b) \$478.75.
  - (c) Twice a week.
- (d) Greater part of it is plowed under.
- (e) No. The contractor furnishes the land.
  - 8. (a) 830.
    - (b) 650.
    - (c) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.

- (d) No.
- (e) Six.
- (f) None.
- (g) None.

10. Sewage disposal would very much lessen the danger of water pollution. Yet we now have mechanical filters in operation that are guaranteed to remove 97 per cent. of bacteria.

Mortality statistics for 1896.—Total number deaths, 125; total from contagious diseases, 16; total from typhoid fever, 9; total from tubercular diseases, 12; total from diarrhoeal diseases, 16.

I do.

Dr. S. S. Cox, Health Officer,

- 1. MARIETTA.
- 2. 15,000.
- 3. (a) Middle Ohio river above city.
  - (b) 900,000 gallous.
  - (c) None.
  - (d) None.
- 4. (a) None.
- 5. (a) Seven miles.
  - (b) Combined.
- (c) Two; 1 city proper; 1 West Marietta.
- (d) Into Ohio River. One above, other below Muskingum river.
  - (e) 500.
  - (f) None.
  - 6. (a) No.
    - (b) Once a year.
    - (c) Taken to country.
    - (d) No.
    - (e) No.
    - (f) Several hundred.
  - 7. (a) At expense of property holders.
- (c) Summer, twice a week; winter, once a week.
  - (d) Taken to country.
- (e) City does not own garbage ground, but is contemplating purchase.
  - 8. (c) None.
  - 9. (a) None.
    - (b) Yes.
    - (c) Yes.
    - (d) No.
    - (e) None.
    - (f) None.
    - (g) None.

Mortality statistics for 1896.—Total number deaths, 116; total from contagious diseases, 12; total from typnoid fever, 5; total from tubercular diseases, 10; total from diarrhoeal diseases, 5.

Dr. B. F. Harr, Health Officer.

- 1. MARION.
- 2. 11,000.
- 3. (a) Taken from gravel reservoirs.
  - (b)  $521,034\frac{1}{2}$ ,
- 4. (a) Taken from drilled wells.
  - (b) No.
- 5. (a) Twelve miles.
  - (b) Separate.
  - (c) One.
  - (d) Little Scioto.
  - (e) One hundred and fifty.
  - (f) No changes needed.
- 6. (a) No.
  - (b) Every six months.
- (c) It is taken into the country and buried.
  - (d) No.
  - (e) No.
- 7. (a) The street commissioner removes all the garbage; he keeps a team hauling all the time.
- (b) It is at the expense of city, but cannot give cost.
  - (d) It is taken into the country.
  - (e) They lease the laud.
- 8. (a) I could not tell, keep no account.
  - 9. (a) Not any.
    - (b) No.
    - (c) They are not. ·
    - (d) They are.
    - (e) Not any.

Mortal ty statistics for 1896.—Total number deaths, 159; total from contagious diseases, 131; total from typhoid fever, 17.

I think the Board of Health should handle their own funds.

G. W. BLAIN, Health Officer.

- 1. MARTINS FERRY.
- 2. 6,250.
- 3. (a) Ohio river.

- (b) About 500,000 gallons.
- (c) Sewers and small streams.
- 4. (a) Probably one-half.
  - (b) Yes.
  - (c) None.
- 5. (a) One-quarter mile.
  - (b) Separate.
  - (c) One.
  - (d) Ohio river.
  - (e) Ten.
  - (f) None.
- 6. (a) In some places, yes; others, no.
  - (b) Once every three or four years.
  - (c) Buried.
  - (d) No.
  - (e) No.
- 7. (a) None.
- 8. (a) Twenty-five.
  - (b) Twenty-five.
  - (c) None.
- 9. (a) None.
  - (b) No.
  - (c) No.
  - (d) No.
  - (e) None.
  - (h) None.
- 10. We need sewerage worse than anything else.

Mortality statistics for 1896.—Total number deaths, 118; total from contagious diseases, 3; total from typhoid fever, 7; total from tubercular diseases, 15; total from diarrhœal diseases, 7.

Dr. J. W. DARRAH. Health Officer.

- 1. MASSILLON.
- 2, 13,000.
- 3. (a) Wells 200 to 300 feet deep
  - (b) Over 500,000 gallons.
- (c) None, I think. The wells are drilled through rock practically their entire depth.
- (d) To do away with the house wells and cisterns for drinking purposes.
- 4. (a) Use artificial ice for domestic purposes almost entirely.
  - (b) No.
- 5. (a) Perhaps three and a half to four miles of main.
  - (b) Separate.
  - (c) One.

- (d) Tuscarawas river,
- (e) No estimate.
- (f) It should be extended as rapidly as possible.
  - 6. (a) Yes, not always enforced.
    - (b) When they are full,
    - (c) On farms outside city limits.
    - (d) No.
    - (e) No.
    - (f) None I think.
  - 7. (a) No systematic arrangement.
    - (c) None.
    - (d) Taken outside limits.
    - (e) No.
  - 8. (a) Three hundred and sixteen.
    - (b) All.
    - (d) Eleven.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (g) None.
  - 10. Regulation of milk supply.

Mortality Statistics for 1896.—Total number of deaths, 109; total from contagious diseases, 14; total from typhoid fever, 6; total from tubercular diseases, 12; total from diarrhœal diseases, 11.

### Dr. T. CLARKE MILLER, Health Officer,

- 1. MIDDLETOWN.
- 2. 10,000.
- 3. (a) Holly system obtained from large well.
  - 4. (a) All.
- (b) Ice ponds all supplied from M. & E. canal.
  - 5. (a) About three miles.
    - (b) Combined.
    - (c) Three.
    - (d) Big Miami river.
    - (e) Seventy-five or one hundred.
    - (f) Making additions now.
- 6. (a) Yes, in specified area to waterworks.
  - (b) Whenever two-thirds full.
  - (c) Dumped into river.
  - (d) No.
  - (e) Not unless properly arranged.
  - (f) None.
  - 7. (a) Carried to river or out of town

in tight barrels.

- (b) Personal expense.
- (c) Carriers give bond and remove every two or three days.
- (d) Dumped into river or carried out of town on city land,
  - (e) Own land.
  - 8. (a) No record of number.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.

Mortality Statistics for 1896.—Total number of deaths, 120; total from contagious diseases, 4; total from typhoid fever, 2; total from tubercular diseases, 28; total from diarrhœal diseases, 12; total from malarial diseases, 1.

Yes.

DR. G. D. LUMMIS, Health Officer.

- 1. MT. VERNON.
- 2. 7.000.
- 3. (a) Artesian wells.
  - (b) 750,000 gallons.
  - (c) None.
  - (d) None.
- 4. (a) A portion of ice used is artificial. The greater part is taken from waters outside, but near the city limits.
- (b) Yes. The ice ponds are fed by running streams, and are used for skating.
  - (c) None.
- 5. (a) Two and one-eighth miles, not including house connections.
  - (b) Combined.
  - (c) Four.
  - (d) Kokosing river.
  - (e) 150.
- (f) One district in the city is sewered; the other three are not; council expects to put in 14½ miles in the east district; much needed.
  - 6. (a) No.
- (b) Not allowed to fill within four feet of the surface.
- (c) Either buried or used as lettilizer on farms.
  - (d) Do not know.
  - (e) A few wells are now so used.

- (f) None.
- 7. (a) Garbage is removed by the property owner or tenant.
- (c) No stated time. We endeavor to have no accumulation of noxious or offensive material.
  - (d) Burned or buried.
  - (e) Lease.
- 8. (a) 100, including 82 hog pens which we consider nuisances.
  - (b) 20.
  - (c) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
  - (d) No.

10. We need about 20 or 25 miles of sewer. In the east district the cellars are wet, and during heavy rains the privy vaults overflow.

Mortality statistics for 1896.— Total number of deaths, 80; total from contagious diseases, 5; total from typhoid fever, 2; total from tubercular diseases, 8; total from diarrhœal diseases, 3.

Yes.

Dr. HARRY W. BLAIR, Health Officer.

- 1. NELSONVILLE.
- 2. 5,000.
- 3. (a) Wells—supplied from Hocking river.
  - (b) 150,000 gallons.
  - (c) None.
  - (d) None.
- 4. (a) The ice plant gets its supply from river within city limits.
  - (b) No.
  - (c) Not any.
  - 5. (a) About 3½ miles.
    - (b) Separate system.
    - (c) One.
- (d) One-half mile southeast of town, and into the Hocking river.
  - (e) Fifty.
  - (f) None.
  - 6. (a) No.
    - (b) Yearly.
    - (c) Buried.
    - (d) Yes.
    - (e) No.
    - (f) Very few.

- 7. (a) Street commissioner.
  - (c) At the order of health office.
  - (d) Buried beyond city limit. (e) No.
- 8. (a) Thirty-two.
  - (b) Thirty-two.
  - (c) None.
  - (d) None.
- 9. (a) None.
  - (b) No.
  - (c) No.
  - (d) No.
  - (e) None.
  - (f) None.
  - (g) None.
  - (h) None.

Mortality statistics for 1896.—Total No. deaths, 59; total from contagious diseases, 2; total from typhoid fever none; total from tubercular diseases, 6; total from diarrheal diseases, 6.

Dr. A. L. PRITCHARD, Health Officer.

- 1. NEWARK.
- 2. 15,000.
- 3. (a) North fork of Licking river by means of the Cook system of driven wells.
  - (b) Nearly 1,000,000 gallons daily.
  - (c) No known source of pollution.
- 4. (a) About one-fourth of our ice supply comes from the canal and is used by the saloons and butchers.
  - (b) Yes.
- (c) The board of health has had the canal cleaned but no steps have been taken to prevent the sale of this ice.
  - 5. (a) Six.
    - (b) Separate.
    - (c) Three.
- (d) One discharges into north fork of Licking river and two into south fork, all within city limits.
  - (e) About 300.
- (f) We need more sewerage, and what we have needs more frequent flushing.
  - 6. (a) No.
- (b) Vaults have not been cleaned except on complaint.
- (c) It has been partly deposited on city dumping grounds and partly taken

by farmers as fertilizer.

- (d) Yes.
- (e) None that we know of.
- (f) Five.
- 7. (a) No definite arrangements have ever been made for the removal of garbage except the provision of dumping grounds.
  - (c) No rule adopted.
- (d) Simply dumped on the dumping ground and allowed to rot.
  - (e) City leases the ground.
- 8. (a) 889. This was the number of complaints to the board from all sources; over 200 were not considered nuisances by board, and there remain about 50 subject to future action by the board of health.
  - (b) 625.
  - (c) None.
  - (d) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
- 10. The enforcement of law relative to plumbing and sewer tapping, rules or orders for cleaning vaults, disposing of garbage; inspection of dairies, milk and meats.

Mortality statistics for 1896.—Total number deaths, 259; total from contagious diseases, 33; total from typhoid fever, 6; total from tube cular diseases, 39; total from diarrheeal diseases, 21; total from malarial diseases, 4.

Our board of health voted unamiously in favor of such law.

Dr. J. P. H. STEDEM, Health Officer.

- 1. NEW PHILADELPHIA.
- 2. 6.000.
- 3. (a) Wells.
  - (b) Hydrant 350,000 gallons.
- 4. (a) A very small proportion, if any.
  - (b) No.
  - 5. (a) Three.
    - (b) Separate.
    - (c) Three.

- (d) Into the Tuscarawas river below the city.
  - (e) 200.
  - (f) No changes.
  - 6. (a) No.
- (b) As often as necessary, in some cases.
  - (d) Yes.
  - (e) No.
- 7. (a) No particular arrangements. Partly at expense of city.
- (c) From once a day to twice a year —modified by location.
- (d) Taken some distance out of the city to be burned. Some burned in the city.
  - (e) City owns two acres.
  - 8. (a) 57.
    - (b) All.
    - (c) None.
    - (d) No prosecutions.
  - 9. (a) One.
    - (b) No.
    - (c) Yes.
    - (d) Yes.
    - (e) None.
    - (g) None.
    - (h) None.
- 10. Rigid enforcement of present rules and regulations.

Mortality statistics for 1896.—Total number deaths, 62; total from contagious diseases, 11; total from typhoid fever, 11; total from tubercular diseases, 12; total from diarrhœal diseases, 10; total from malarial diseases, 8.

P. H. SIGRIST, M. D., Health Officer.

- 1. NILES.
- 2. 7,000.
- 3. (a) Deep drilled wells.
  - (b) 250, 00 gallons.
- (c) Hydrants are not properly flushed.
- (d) That the street hydrants be tapped once a month. Reservoir flushed once in two months in summer months.
- 4. (a) All taken about one-half mile above city, of Mosquito creek.
- (b) A small sewer empties onefourth mile below the place ice is cut.
  - (c) We consider the ice as good as | taken from the lake.

is possible to get from streams.

- 5. (a) Scarcely one-half mile.
  - (b) No system.
  - (c) Two.
- (d) One into a mill dam, one into Mosquito creek, one into Mahoning river.
  - (e) Not to exceed twenty.
- (f) Needs the city sewered complete.
  - 6. (a) Yes.
    - (b) About one in two years.
- (c) Taken out after midnight in tanks and used on farm land.
  - (d) No.
  - (e) No.
  - (f) About one-half dozen.
  - 7. (a) Each man removes his own.
    - (b) Individual expense.
    - (c) Every week in warm months.
- (d) Taken to dumping ground of city one-half mile from city limits.
  - (e) Donated, city.
  - 8. (a) About twelve.
    - (b) Twelve.
    - (c) None.
    - (d) One.
  - 9. (a) None.
- (b) None has yet been, will be soon.
  - (c) Yes.
  - (d) Yes.
  - (e) About eight,
  - (f) None.
  - (g) None.
  - (h) None.
  - 10. City sewerage.

Mortality statistics for 1896.— Total number deaths, 103; total from contagious diseases 13; total from tubercular diseases, 1; total from diarrhœal diseases, 6; total from malarial diseases, 2. We do.

DR. C. C. WILLIAMS, Health officer.

- 1. NORWALK.
- 2. 8,000.
- 3. (a) Peru creek.
  - (b) 1,500,000 gallons.
  - (c) Ordinary farm drainage.
- 4. Nearly all,
- (b) For drinking purposes it is taken from the lake.

- 5. (a) Eleven.
  - (b) Combined.
  - (c) Two.
- (d) South side drainage discharges into Norwalk creek, then into east branch of Huron river. North side drainage discharges into east branch of Huron river through small streams.
  - (e) About one-eighth.
  - (f) None.
  - 6. (a) Yes.
    - (b) Once in six months.
    - (c) Outside of city.
    - (d) No.
    - (e) No.
    - (f) One-half.
  - 7. (a) It is dumped outside of city.
    - (b) No expense.
    - (c) Every week.
    - (d) It is dumped on land.
    - (e) Lease.
  - 8. (c) None.
- 9. (a) None. The health officer inspects.
  - (b) Yes.
  - (c) Yes.
  - (d) Yes.
  - (e) Three or four times per year.
  - (f) None.
  - (g) None.

Mortality statistics for 1896.—Total number of deaths, 74; total from contagious diseases, 4; total from tubercular diseases, 11; total from diarrhœal diseases, 1.

Dr. E. MARTIN, Health Officer.

- 1. Norwood.
- 2. 7,500.
- 3. (a) Driven wells.
  - (b) Two hundred thousand gallous.
  - (c) None.
- 4. (a) None.
- 5. (a) 13.
  - (b) Separate.
  - (c) Four.
  - (d) Bloody run and Duck creek.
  - (e) Three hundred.
- 6. (a) Yes.
  - (b) Every four months.
  - (c) Burned and buried.
  - (d) No.

- (e) No.
- 7. (a) Taken up by wagons twice a week.
  - (b) Private.
  - (c) Buried and burned.
  - (e) No.
  - 8. (a) Ten.
    - (b) Ten.
    - (c) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) By Cincinnati inspector.
    - (e) None.

Mortality statistics for 1896.—Total number of deaths, 72; total from contagious diseases, 6; total from typhoid fever, 5; total from tubercular diseases, 11; total from diarrhoeal diseases, 9; total from malarial diseases, 1.

Dr. J. C. CADWALLADER,

Health Officer.

- 1. OBERLIN.
- 2. 4,600.
- (a) East branch of Vermillion river.
  - (b) 67,000 gallons.
  - (c) None.
  - (d) None.
  - 4. (a) Nearly none.
    - (b) No.
    - (c) None.
  - 5. (a) Eight miles.
    - (b) Separate.
    - (c) One.
    - (d) On sewer farm.
    - (e) Three hundred water closets.
    - (f) None.
  - 6. (a) No.
    - (b) None.
- (c) What little comes from privies is buried.
  - (d) One Smead dry closet.
  - 7. (a) None.
  - 8. (a) Ten.
    - (b) Ten.
    - (c) None.
    - (c) None.
  - 9. (a) None.
    - (b) No.(c) No.
    - (2) 270.
    - (d) No.
    - (e) None.

- (g) None. ·
- (h) None.
- 10. None.

Mortality statistics for 1896.-Total number deaths, 52; total from contagious diseases, 5; total from typhoid fever, 3; total from tubercular diseases, 5; total from diarrhœal diseases, 1; total from malarial diseases, none.

Yes.

E. L. BURGE. Health Officer.

- 1. PAINESVILLE.
- 2. 6.000.
- 3. (a) Lake Erie.
  - (b) Do not know.
  - (c) Grand River and Shore line.
  - (d) None at present.
- 4. (a) None.
  - (b) I think not.
- (c) None, as we have not seen occasion to do so.
  - 5. (a) About six miles.
    - (b) Separate.
    - (c) Three.
    - (d) Into Grand river.
    - (e) 321.
    - (f) Increased amount.
  - 6. (a) Yes, where vaults are used.
    - (b) Twice a year.
- (c) By contract in 1895 in 1896, taken outside city and used as fertilizer.
  - (d) No.
  - (e) No.
  - (f) About 1,000.
  - 7. (a) We have none.
    - (d) Carted out of city.
    - (e) Neither.
  - 8. (a) 40 or 50.
    - (b) All.
    - (c) None.
    - (d) None.
  - 9. (a) None but health officer.
    - (b) Yes.
    - (c) Yes.
    - (d) No.

    - . (e) 10. (f) None.
      - (g) None.
      - (h) None.
  - 10. More sewers.

Mortality statistics for 1896.-Total number deaths, 77; total from tubercular diseases, 9; total from diarrhœal diseases, 1.

> DR. D. J. MERRIMAN, Health Officer.

- 1. PIQUA.
- 2. 12,000.
- 3. (a) Hydraulic, comes from canal, four miles north.
  - (b) Cannot say.
- (c) Everything in it, even hogs and dogs, all manner of weeds, etc.
- (d) We tried to get wells but failed. No change recommended.
  - 4. (a) All.
    - (b) Yes.
    - (c) None. (a) Two.
    - (b) Combined.
    - (c) Three.
    - (d) Miami river.
    - (e) Cannot say, but may yet.
    - (f) We need more sewerage.
  - 6. (a) Yes.
    - (b) Seem as full.
    - (c) Taken in country, put on land.
    - (d) No.
    - (e) No.
    - (f) Cannot say.
  - 7. (a) Men hired to haul it away.
    - (b) No expense.
    - (c) Every day.
- (d) Hauled to country and different places from city limits.
  - (e) No.
  - (a) 150.
    - (b) 100.
    - (c) None.
    - (d) None.
  - 9. (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) Yes.
    - (e) Cannot say.
    - (f) None.
    - (g) None.
    - (h) None.
- 10. Old buildings should be renovated. Great many yards need filling, etc.

Mortality Statistics for 1896.-Total from contagious diseases, 13; total from typhoid fever, 10; total from tubercular diseases, 15; total from diarrhoed diseases, 10.

Dr. W. N. UNKEFER, Health Officer.

- 1. POMEROY.
- 2. 5.000.
- 3. (a) River, spring and cisterns.
- 4. (a) None, all is furnished by plant.
- 5. (a) One or two.
  - (b) Separate.
- (c) Impossible—nearly one for each house along the river.
  - (d) Ohio river.
  - (e) 25 or 30.
- (f) Some should be extended to low water mark.
  - 6. (a) No.
    - (d) Yes.
    - (e) No.
  - 7. (a) None.
  - 8. (a) 43.
    - (b) 40.
    - (c) None.
    - (d) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (f) None.
    - (g) None.
    - (h) None.

Mortality statistics for 1896.—Total number deaths, ——; total from contagious diseases, 2; total from typhoid fever, 6; total from tubercular diseases, 4; total from diarrhœal diseases, 1; total from malarial diseases, 1.

DR. R. E. STOBART, Health Officer.

- 1. PORTSMOUTH.
- 2. 18,000.
- 3. (a) Holly system waterworks, owned by city, pumping direct from Ohio river.
  - (b) 2,500,000 gallons daily.
  - (c) None.
  - (d) None.
  - 4. (a) About one-fourth, balance arti-

ficial and made here.

- (b) The natural supply from Scioto river is more or less contaminated by sewage.
- (c) Don't know, the contamination being from up river towns, and the ice not used here for domestic purposes.
  - 5. (a) About two miles.
- (b) Both, mostly separate surface water sewers.
  - (c) Nine.
  - (d) Scioto river.
  - (e) 28 or 30 by special permission.
- (f) We are advocating complete system of surface drainage for the present.
  - 6. (a) No.
    - (b) Annually.
- (c) Ditched and covered, and some dumped on sand bar.
  - (d) They are not.
  - (e) No.
  - (f) 25.
- 7. (a) Garbage contract system, city divided into 7 precincts under city ordinance.
  - (b) \$2,535.06.
- (c) Daily in business portion of city, tri-weekly in residence portions.
- (d) Thrown on the dumps Scioto river banks, western part of the city.
- (e) Owns some, leases some, some private grounds.
  - 8. ' (a) 273.
    - (b) 248.
    - (c) None.
    - (d) None.
  - 9. (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) Yes.
    - (e) 28/.
    - (f) 12.
    - (g) None.
- (h) None, our laws were lame and new ones passed.
- 10. A thorough system of surface drainage, a fertilizer plant or garbage crematory and the control of the street cleaning department.

Mortality statistics for 1896.—Total number deaths, 322; total from contagious diseases, 39; total from typhoid

fever, 10; total from tubercular diseases, 76; total from diarrhoeal diseases, 29; total from malarial diseases, 4.

We are in favor of above.

Dr. Jos. Swander, Health Officer.

- 1. SALEM.
- 2. 8,000.
- 3. (a) Springs and wells.
  - (b) 325,000 gallons.
- 4. (a) None.
- (c) We require an analysis of each crop of ice by a competent chemist.
  - 5. (a) Four miles.
    - (b) Combined.
    - (c) Two.
    - (d) Small creek.
    - (e) 200 closets, 15 vaults.
    - (f) General sewerage system.
  - 6. (a) Yes.
    - (b) Every three to six months.
- (c) Used as a fertilizer outside the city.
  - (d) No.
  - (e) No.
  - (f) None.
  - 7. (a) Barrels with water tight covers.
    - (b) Not at city's expense.
- (c) When found needing cleaning by sanitary police. In general every three days.
- (d) Deposited upon land out of ! city,
  - (e) No.
  - 8. (a) 1,500.
    - (b) Don't know.
    - (c) None.
    - (d) None.
  - 9. (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) Yes.
    - (e) None.
    - (f) None.
    - (g) None.
    - (h) None.
  - 10. A system of sewerage.

Mortality statistics for 1896.—Total number deaths, 87; total from contagious diseases, 5; total from typhoid fever 5; total from tubercular diseases, 7; total from diarrhœal diseases, 6.

Yes.

Dr. F. T. MILES, Health Officer.

- 1. SANDUSKY.
- 2. 23,000.
- 3. (a) Yes, from Sandusky bay.
  - (b) 3,781,000 gallon3.
- (c) As new sewers are being added to discharge their contents into the bay so there can be no question about some contamination at times from said source.
- (d) To lower and extend the influent pipe further into the bay or lake.
  - 4. (a) The greater portion.
- (b) To only a very small extent as ice takes up only 1-10 of the impurity of the water.
- (c) To go further out into said bay. Some of the ice gathered this year 1½ miles out into the bay.
  - 5. (a) 31\frac{1}{2} miles.
    - (b) Separate and in districts.
    - (c) Sixteen main outlets.
    - (d) Sandusky bay.
    - (e) 750.
- (f) The change, if any, would be an intercepting sewer, constructed of sufficient size to carry all the drainage from every sewer to the extreme east side of city into Pipe Creek.
- 6. (a) Yes, as nearly water-tight as possible.
- (b) Once each week and oftener if necessary.
- (c) The board of health enters into a contract with a person or persons to remove the same into the country and plow it over a foot below the surface of the ground.
  - (d) No. First cleaned and then filled with earth.
    - (e) No.
    - (i) Not over ten.
- 7. (a) No special contract but removed by barrels, in wagons, covered up, and carts with covers over same.
- (d) Removed by persons keeping hogs.
  - (a) Can't give in exact number.
    - (b) All abated.
    - (c) None.
  - 9. (a) One.

- (b) Yes.
- (c) Yes.
- (d) Yes.
- (e) 920.
- (f) Only a few.
- (g) None. If the milk was below the standard the vendor was ordered to appear at health officer's office, etc.
- 10. The general sanitary condition of our city is good. The extension of the water works influent pipe will, in time, become necessary.

Mortality statistics for 1896.—Total number deaths, 174; total from contagious diseases, 34; total from typhoid fever, 4; total from tubercular diseases, 15; total from diarrhœal diseases, 5; total malarial diseases, 1.

Yes.

C. EUGENE STROUD, M. D., Health Officer,

- 1. SIDNEY.
- 2. 6,000.
- 3. (a) Deep wells.
  - (b) 450,000 gallons.
  - (c) None that we know of.
- (d) None, except a more universal use of this water on the part of our people.
  - 4. (a) About half.
- (b) It is simply canal water which overflows a pond.
- (c) None; can't say that there is any actual or special source of contamination.
  - 5. (a) About one mile of private sewer.
    - (b) Separate.
    - (c) One.
- (d) Into the Miami river, inside of the corporate limits.
- (e) 20 to 30, including court house, jail, and one school building.
- (f) A general sewerage system put in by the village corporation and which would give an outlet to entire village. The above sewer is owned by county and private individuals.
- 6. (a) Yes; by order of board of health.
- (c) It is done by scavengers on per- save after filtration through mit from board of health, using water | and gravel, above water vein.

tight barrels, etc.

- (d) Not permitted by board of health but has been done in a few instances.
  - (e) None to our knowledge.
- (f) No means of knowing; not many.
- 7. (a) The board of health has sought to regulate this by an order, but employs no garbage men. The people pay for the work as it is done; make their own contracts.
  - (b) Not at expense of city.
- (c) Twice a month in summer and once a month in winter.
- (d) Much of it is fed to hogs—that is kitchen garbage. Other garbage is hauled to a dump provided by board of health.
- (e) Have a contract to use it for garbage purposes or disposal.
  - 8, (a) Kept no record of number.
    - (b) All that came up.
    - (c) None.
- 9. (a) Done by health officer or committee from board of health.
  - (b) Yes,
  - (c) Yes.
  - (d) Yes; at least once each year.
  - (e) Eight.
  - (f) None.
  - (g) None.
- 10. A general sewerage system. Survey and plans were made for same during the year, but have not been acted on by council.

Mortality statistics for 1896.—Total number of deaths, —; total from contagious diseases, 10; total from typhoid fever, 4; total from tubercular diseases, 8; total from diarrhœal diseases, 11; total from malaria' d seases, 1.

DR EDWIN LE FEVRE. Health Officer.

- 1. SPRINGFIELD.
- 2. 38,000.
- 3. (a) From well and gallery through gravel to hard pan, on farm northeast of city.
  - (b) 2,500,000 gallons.
- (c) Practically none; none possible save after filtration through soil, sand and gravel, above water vein.

- mains.
- 4. (a) None for family use. Some used for cold storage plants.
- (b) Yes; totally unfit for general use.
  - (c) None.
  - 5. (a) Seven and three-tenth miles.
    - (b) Combined.
    - (c) Six.
- (d) Into Lagonda creek, and into Mill run, discharging into Lagonda creek, and is itself practically a sewer.
- (e) Probably 600 or 700; no record reliable.
- (f) Whole system bad. Mill run should be abandoned as a sewer and proper outlets secured; not in the city.
  - 6. (a) No.
    - (b) Only when offensive or full.
- (c) Hauled out of city and disposed of any way most convenient to hauler. Some made into fertilizer.
- (d) Yes, in the past. Ordinance now being considered to prevent this.
  - (e) Yes; in a few cases.
  - (f) None.
- 7. (a) Hauled out of city at agreed price per wagon per day.
  - (b) About \$2,200.
- (c) As often as the wagons can get around or complaint is made. No rule.
- (d) Taken some 3 miles from center of city; fed to hogs, etc.
  - (e) No; land owned by teamster.
- (a) Eleven hundred and twentynine.
- (b) Eleven hundred and twentynine.
  - (c) Three.
  - (d) Three.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No; none.
    - (e) None.
    - (g) None.
- 10. Proper sewers; milk and dairy inspection; extension of water mains; water-tight privy vaults.

Mortality statistics for 1896 - Total number deaths, 426; total from contagious diseases, 41; total from typhoid fever, il; total from tubercular diseases,

(d) None, except extension of 56; total from diarrhœal diseases, 27; total from malarial diseases, 1.

> DR, HENRY H. SEYS, Health Officer.

- STEUBENVILLE.
- 2. 13,000.
- Ohio river.
- (a) Two-thirds.
  - (b) No.
- 6. (a) No.
  - (d) Yes.
- 7. (a) No system.
  - (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (g) None.

Mortality statistics for 1896.—Total number deaths, 45; total from contagions diseases, 7; total from typhoid fever, 4; total from tubercular diseases,

> D. E. HALSTEAD, Secretary.

- 1. TIFFIN.
- 14.000.
- (a) Wells.
  - (b) 950,000 gallons (hydrant).
  - (c) None.
  - (d) None.
- 4. (a) One-third.
  - (b) Yes.
  - (c) None.
- (a) Twenty (20).
  - (b) Combined.
  - (c) Seventeen (17).
  - (d) Sandusky river.
  - (e) Nine hundred and fifty.
  - (f) None.
- 6. (a) Yes.
  - (b) About once in two years.
  - (c) Buried outside of city limits.
  - (d) No.
  - (e) No.
  - (f) Four hundred.
- (a) Hauled out of the city limits three times a week.
  - (b) \$725.00.
  - (c) Three times a week.

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- (d) Fed to hogs.
- (e) On land and is taken care of by a farmer.
- 8. (a) About five when the board was called to investigate.
  - (b) Five.
  - (c) No prosecutions.
  - 9. (a) One (1).
    - (b) Yes.
    - (c) Yes.
    - (d) Yes.
    - (e) Fifty.
    - (f) None.
    - (g) None.
- 10. None to offer at the present time.

  Mortality statistics for 1896.—Total
  number deaths, 163; total from contagious diseases, 4; total from typhoid
  fever, 10; total from tubercular diseases, 16; total from diarrhœal diseases,
  1
  - J. W. RUSSELL, M. D. Health Officer.
  - I, Tor,EDO.
  - 2. 137,780.
- 3. (a) Maumee river, artesian and surface wells.
- (b) Waterworks 9,500,000 gallons daily. Wells cannot say.
  - (c) Sewers
- (d) I am not able to specify changes if any are practicable.
  - 4. (a) About one-half.
    - (b) Not particularly.
- (c) One year ago last winter all ice from this vicinity was analyzed and found good.
  - 5. (a) About 121 miles.
    - (b) Combined.
    - (c) About 25.
- (d) Maumee river, Swan creek, M. & E. canal, Ottawa river.
  - (e) About 10,000.
- (f) I am not sufficiently acquainted with the present extensive system to suggest changes. This is the duty of the city engineer.
  - 6. (a) No.
    - (b) About every two years.
    - (c) Used on farms as fertilizer.
    - (d) No.
    - (e) No.

- (f) None that I know of.
- 7. (a) By counsel contract.
  - (b) \$6,900.00.
- (c) Three times a week within one mile of postoffice, two a week outside.
- (d) Taken into county for fertilizer.
  - (e) City does not.
- 8. (a) Inspections 43,457 with 20,704 nuisances.
  - (b) 20,704.
  - (c) Seven.
  - (d) Six.
  - 9. (a) One city chemist.
    - (b) None.
- (c) Kept by city chemist to best of his ability considering changes in business
  - (d) Yes, with State Food Inspector.
  - (e) 198.
  - (f) Ten.
- (g) None. Reason for non-prosecution—they were too close to the standard or for want of sufficient evidence.
  - (h) None.
- 10. We most need money enough to pay expenses of the department.

Mortality statistics for 1896.—Total number deaths, 1,473; total from contagious diseases 76; total from typhoid fever, 37; total from tubercular diseases, 125; total from diarrhoeal diseases, 99; total from malarial diseases, 11.

Yes, and the amount based on the expense for the year as estimated by board of health.

Dr. J. T. Woods, Health officer.

- 1. Troy.
- 2. 5.000.
- 3. (a) Holly system pump from wells
  - (b) Don't know.
  - (c) None.
- 4. (a) Three-fourths.
  - (b) Yes.
  - (c) None.
- 5. (a) None.
  - (b) Neither.
    - (c) None.
  - (f) Need a sewer system.
- 6. (a) Yes.
  - (b) Every two years.

- (c) Buried.
- (d) No.
- (e) No.
- (f) None that I know of.
- 7. (a) Removed by a tank wagon. Hauled to country.
  - (b) \$445.00.
- (c) Once in winter and twice a week in summer.
- (d) Fed to hogs or used us compost.
  - (e) On land not owned by city.
  - 8. (a) About twenty-five.
    - (b) All.
    - (c) None.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (g) None.
- 10. A system of sewerage is needed. Mortality Statistics for 1896.—Total number deaths, —; total from contagious diseases, 12; total from typhoid fever, none; total from tubercular diseases, 14; total from diarrhœal diseases, 4; total from malarial diseases, none.

Yes, I favor such leg slation.

Dr. Thos. M. WRIGHT, Health Officer

- 1. URBANA.
- · 2. 7,500.
- 3. (a) Holley system—eight wells, supplied by springs.
  - (b) 900,000 gallons.
  - (c) None
- 4. (a) None. All that is sold is manufactured from distilled water.
  - (b) No.
- 5. (a) None.
- (f) A complete system is badly needed.
  - 6. (a) No.
    - (b) Annually.
- (c) Is hauled in closed barrels to country.
  - (d) No.
  - (e) No.
  - (f) About 50.
- 7. (a) It is collected semi-weekly in the thickly settled portions of the city

in barrels on which are lids and hauled to the suburbs.

- (!) A portion is fed to hogs in suburbs or outside of city limits.
  - (e) Leased.
  - 8. (a) Two hundred and ninety-five.
- (b) Two hundred and seventyseven.
  - , (c) Two.
  - (d) Two.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) No.
    - (e) None.

Mortality statistics for 1896.—Total number deaths, 90; total from contagious diseases, 3; total from typhoid fever, 3; total from tubercular diseases, 7; total from diarrhœal diseases, 4; total from malarial diseases, 3.

Yes.

# DR. H. C. Houston, Health Officer.

- 1. VAN WERT.
- 2 7,000.
- 3. (a) Artesian wells.
  - (b) 140,000.
  - (c) None.
- 4. (a) About one-half.

(b) None that comes in contact with food or drink.

- (c) None. All ice that might be contaminated is used only in meat market coolers, etc.
  - 5. (a) About eight miles.
    - (b) Combined.
    - (c) About twelve.
- (d) Town creek, or a stream that runs through the center of town and goes dry in dry times except when kept flooded with hydrant water.
  - (e) Thirty-eight.
- (f; An outlet below city through main single sewerage system.
- 6. (a) No, but tiling of all vaults to carry off water is required.
  - (b) Two years.
- (c) Carried outside of corporate limits and buried when not used as fertilizer.
  - (d) No.



- (e) No.
- (f) About twenty-five.
- (a) Mostly by persons for hog feed. Will recommend council to pay a bonus to garbage gatherers next spring.
- (c) Frequent enough for cleanliness where much accumulates.
- (d) Some fed to swine. Some is buried outside city.
- (e) City does not own or lease for that purpose.
  - 8. (a) No record is kept of them.
    - (b) No record.
    - (d) No prosecutions.
  - 9. (a) None.
    - (b) No.
    - (c) No.
    - (d) Only when complaint is made.
    - (e) None by board of health.
    - (f) None by board of health.
    - (g) None by board of health.
    - (b) None.
- 10. A sewer system and provisions for a proper disposition of garbage is needed

Mortality statistics for 1896. - No record kept by by board of health.

> DR. E. L. WILKINSON, Health Officer.

- 1. WARREN.
- 2. 9.000.
- (a) Mahoning river.
  - (b) 50,000 barrels.
  - (c) Young's run.
  - (d) None.
- 4. (a) Three-fourths.
  - (h) Yes.
  - (c) None.
- (a) Fisteen miles.
  - (b) Both.
  - (c) Six.
  - (d) Mahoning river.
  - (e) Five hundred.
- (f) Market street outlet ought to be changed to lower part of city.
  - 6. (a) Yes.
    - (b) Annually or oftener.
- (c) Taken to dump ground and composted and sold to farmers.
  - (d) No.
  - (e) No.

- (f) Eight hundred and ninety-six.
- (a) No particular arrangements.
  - (c) Before it becomes a nuisance.
  - (d) Conveyed to dump grounds.
  - (e) City owns land.
- 8. (a) Five hundred.
  - (b) All.
  - (c) Twenty.
  - (d) Twenty.
  - (9) One.
  - (b) Yes.
  - (c) Yes.
  - (d) Y s.
  - (e) About one hundred.
  - (f) One.
  - (g) One.
  - (h) One.

10. Outlet of Market street sewer.

Mortality statistics for 1896.—Total number deaths, 61; total from contagious diseases 2; total from tubercular diseases, 6; total from diarrhœal diseases, 5; total from malarial diseases, 4.

Yes.

## DR. M. L. WILLIAMS, Health Officer.

- 1. WASHINGTON C. H.
- 2. 7.121 taken in 1895.
- (a) Wells and water works; eighteen miles of water main in city.
  - (b) From water works, 400,000.
  - (c) None known at water works.
  - (d) None.
  - (a) None, all manufactured.
  - (a) Three miles estimated.
    - (b) Separate.
    - (e) Seven.
    - (d) Into Paint creek.
    - (e) About twelve.
    - (f) An entire new system.
  - 6. (a) Some.
    - (c) Taken out of city.

    - (d) No.

    - (e) No.
    - (f) None.
- (a) None—Each individual takes care of his own-has it taken out of the city.
  - (b) Not at expense of city.
  - (c) Removed when necessary.
  - (d) Placed on farm lands.
  - (e) City does not own it.



- 8. (a) Fifty, estimated.
  - (b) Fifty.
  - (c) None.
  - (d) None,
- 9. (a) None.
  - (b) No.
  - (c) No.
  - (d) Yes.
  - (e) None.
  - (f) None.
  - (g) None.
  - (h) None.
- 10. A system of sewerage.

Mortality statistics for 1896.—Total number deaths, 85; total from contagious diseases, 6; total from typhoid' fever, 2; total from tubercular diseases, 18; total from diarrhœal diseases, 2.

Yes, by all means.

J. M. EDWARDS. Health Officer.

- 1. WELLSTON.
- 2. 8.000.
- 3. (a) Raccoon creek and private wells.
  - (b) 100,000 gallons.
- (c) None save that natural to a stream of water. No manufactures or other plants located above point of supply. No source of pollution to wells.
  - (d) A system of filtering water.
  - 4. (a) Not any.
    - (b) No.
    - (c) Not necessary, not being used.
  - 5. (a) Perhaps less than one mile.
    - (c) Two.
- (d) One in a small stream the other in a street.
  - (f) More of them and larger.
  - 6. (a) Yes.
    - (b) Once a year.
- (c) Hauled out in sealed boxes after 10. p, m.
- - (d) No.
  - (c) Not but one reported.
- 7. (a) A garbage ground rented about one mile from city. Garbage hauled out and covered one ft, or more.
- (c) Once a week or more frequent if necessary.
  - (d) As above.
  - (e) Leased.
  - 8. (a) Near three hundred.

- (h) All the above number.
- (c) None.
- (a) None,
- (b) No.
- (c) No.
- (d) There are but two, and the cows are daily in an open pasture.
  - (e) Show they are properly kept.
  - (f) None.
  - (g) None.
  - 10. General cleaning up of alleys.

Mortality statistics for 1896.-Total from contagious diseases, 12; total from typhoid fever, 2; total from tubercular diseases, 15; total from diarrhœal diseases, 4; total from malarial diseases, 8.

Yes.

A. D. WARD, Health Officer.

- WELLSVILLE.
- 2. 6.000.
- (a) Ohio river.
  - (b) 280,000 gallous.
- (c) All cities above Wellsville sewer into the Ohio river.
- (d) To obtain water from some other source.
- 4. (a) All of it.
  - (b) Yes.
  - (c) None.
- 5. (a) Have no system of sewerage.
- (a) No.
  - (b) Average once in 5 years.
  - (c) Hauled out of city limits.
  - (d) No.
  - (c) No.
- . 7. (a) Each property owner or tenant has his own removed.
- (c) As frequently as deemed necessary.
  - (d) Dumped into the Ohio river.
  - (a) 25.
    - (b) 23.
  - 9. (a) One
    - (b) Yes.
    - (c) Yes. ( ) Yes.
    - (f) None.
- 10. Sewerage and disposition of garbage.

Mortality statistics for 1896 - Total number of death, 78; total from contagious diseases, 6; total from typhoid | fever, 6; total from tubercular diseases,

I am in favor of such a law.

I. T. WARREN. Health Officer.

- 1. XENIA.
- 2, 8,500.
- 3. (a) Springs and wells.
  - (c) Surface drainage.
- 4. (a) Three-fourths.
  - (b) It is.
  - (c) None.
- 5. (a) About one and three-fourths miles.
  - (b) About four.
- (d) Surface water and water from down spouts.
- (e) None that the board is aware of.
- (f) None at present unless it is the putting in of an entire new sewerage system.
  - 6. (a) Only in a part of the city.
    - (b) About every three years.
- (c) Hauled outside of corporation and spread upon the ground as fertilizer.
  - (d) No.
  - (e) No.
  - (f) None to my knowledge.
- 7. (a) No arrangements for removing garbage.
- (d) Each one having garbage hauls it away at his own expense to a place set aside for that purpose by the city.
  - (e) The city owns the land.
  - 8. (a) 360.
    - (b) 300.
    - (c) No prosecutions.
    - (d) None.
  - 9. (a) None.
    - (h) No.
    - (c) No.
    - (d) No.
    - (e) None.
    - (f) None.
    - (g) None.
    - (h) None.

Mortality Statistics for 1896 - Total

fever, 5; total from tubercular diseases, 23; total from diarrhæal diseases, 9.

Yes.

DR. A. D. DE HAVEN, Health Officer.

- 1. Youngstown.
- 2. 40,000.
- 3. (a) Mahoning river.
- (b) Used during the year 2,500,000 gallons.
- (c) Sewage and filth from towns on the stream above.
- (d) Sewage purification, change to separate system.
- (a) One-third manufactured from distilled water, two-thirds from streams.
  - (b) Yes.
  - (c) None.
  - (a) Twenty three and one-tenth.
    - (b) Combined.
    - (c) Three outlets.
- (d) Into the Mahoning river within the city limits.
  - (e) 1,622.
- (f) Needs complete change with end in view of purifying sewage.
  - (a) Yes.
    - (b) Once in eighteen months.
- (c) Deposited on land outside the city.
  - (d) No.
    - (e) No.
  - (f) Not more than fifty.
  - (a) Burned on a dumping ground.
- (b) Each householder removes his own.
  - (c) No regular times for removal-
- (d) Carted to dumping ground and burned.
  - (e) City owns land,
  - (b) 1.404.
  - (a) One.
    - (b) Yes.
    - (c) Yes.
    - (d) Yes.
- 10. (a) A system of garbage removal and better sewers.

Mortality statistics for 1896.-Total number deaths, 452; total from contanumber of deaths, 130; total from typhoid | gious diseases, 26; total from typhoid fever, 22; total from tubercular diseases, 89; total from diarrhœal diseases, 45; total from malarial diseases, one.

Yes.

Dr. H. E. Wrich, Health Officer.

- 1. ZANESVILLE.
- 2. 21,100 in 1890.
- 3. (a) Muskingum river, safe distance above the sewers.
  - (b) 4,000,000 gallons.
- (c) None. The nearest town above is Dresden, a distance of 14 or 15 miles.
  - 4. (a) About one-half.
    - (b) Part is and part is not.
- (c) The matter was talked of at our last meeting.
  - 5. (a) About five miles.
    - (b) Separate.
    - (c) Five.
    - (d) The Muskingum river.
    - (e) Seven or eight hundred.
- (f) We think the system as far as it goes is fair.
  - 6. (a) No.
    - (b) From one to six years.
    - (c) Buried according to law.
    - (d) No.
    - (e) No.
    - (f) Eight.

- 7. (a) The Board owns two regular garbage carts; they employ two men with teams to run them during the summer months.
- (b) The Board pays these men three dollars a day each.
  - (c) Every two or three days.
- (d) Farmers on either side of town keep hogs for the purpose of feeding the garbage.
  - (e) No.
  - 8. (a) About 1,500.
    - (b) About 1,200.
    - (c) Two.
    - (d) Two.
- 9. (a) The sanitary policeman does it.
  - (b) Yes.
  - (c) Yes.
  - (d) Yes.
  - (e) Two hundred.
  - (f) None.
  - (g) None.
  - (h) None.

Mortality Statistics for 1896.—Total number deaths, 322; total from contagious diseases, 47; total from typhoid fever, 14; total from tubercular diseases, 26; total from diarrhoeal diseases, 4; total from malarial diseases, 5.

I do.

Dr. H. T. SUTTON, Health Officer.



# OHIO STATE BOARD OF HEALTH.

Office of the Secretary.

COLUMBUS, OHIO, Dec. 31, 1896.

To the Health Officer:

Section 2136 of the Revised Statutes of Ohio makes it the duty of the board of health to make a report to the State Board of Health on or before the first Monday in March of each year; also to make such special reports as may be called for by said State Board.

It is more desirable in many ways that the annual reports should be made for the calendar year, and this is necessary in order that these reports may be published in the annual report of the State Board of Health; you are therefore respectfully requested to send your annual report as soon as possible after December 31, 1896.

Information in regard to subjects mentioned below is specially desired, but other useful information with special reference to sanitary matters in your community, will be gladly received.

An addressed envelope is enclosed for your reply.

Very respectfully,

C. O. Probst, M. D.,

Secretary.

#### QUESTIONS.

- 1. Name of village.
- 2. Estimated population.
- 3. Amount expended by board of health during the year.
- 4. Amount paid to the health officer.
- 5. How many meetings were held during the year?
- 6. How many nuisances were investigated?
- 7. How many were abated?
- 8. Were your school houses examined as to their sanitary condition?
- 9. If so, in what condition were they found?
- 10. Does your board regulate the construction of privy vaults?
- 11. How are they usually constructed?
- 12. Does the board require privy vaults to be any given distance from wells?
- 13. If so, what is the required distance?
- 14. Are hog-pens permitted within corporate limits?
- 15. State in a general way, what is the present sanitary condition of your village and what changes or improvements you deem necessary?
- 16. How many cases of and deaths from the following contagious diseases were reported to your board for the year ending December 31, 1896.

#### CONTAGIOUS DISEASES.

Diphtheria and membranous croup.		Scarlet fever.		Typhoid fever.		Measles.		Whooping cough.		
-	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
	······									

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- 1. ADA.
- 2,600.
- Fifty dollars. Thirty dollars.
- Seven.
- Sixty-three.
- Forty-five.
- Several times.
- Very best. We have the Smead system.
  - 10. No.
  - 12. Not nearer than fifty feet.
  - 13. Fifty feet,
  - 14. Yes.
- 15. Very good. We have a good sewer pipe drainage of our town, last season we completed over one mile of sewer, averaging over 8 feet in depth, which completes our sewerage.

16. Diphtheria and membranous croup, 10 cases, 4 deaths; scarlet fever, 4 cases; typhoid fever, 10 cases.

W. H. Morrow,

Health Officer.

- 1. ADDYSTON.
- 1,800.
- Cannot say.
- Allowed five dollars per month by Health Board, but disputed by council who wants both officer and clerk to serve for twenty-five dollars per year.
  - 5. Supposed to meet once per month.
  - 6. I looked at four hog pens.
- 7. All of them with the return of cold weather.
  - Yes.
- We have a good brick school house of 7 class rooms, heated by coal stoves with good ventilation.

10. None built since I took office, the

place is not improving much.

11. Dug square about eight or ten feet deep, walled up with rock.

12. Our water supply is cisterns and hydrants.

13. Average about thirty feet. 14. Have been, but are doing away with them.

15. General health here is very good. A great many of the people depend on the pipe works here for a living, it has not been doing much lately and a great deal of destitution exists.

16. Diphtheria and membranous croup, 6 cases, 1 death; measles, 25 cases, 3 deaths; whooping cough, 30 cases, 6

deaths.

HUGH KENNEDY. Health Officer.

- 1. ADELPHI.
- Two dollars and ten cents.

- One dollar and fifty cents.
- Б. Three.
- в. Six.
- 7. Six.
- 8. No. 10. No.
- 11. Four to ten feet deep, walled with brick, or wood box.
- 12. No.
- Yes. 14.
- 15. Sanitary conditions good. To regulate the distance of privy vaults from wells.
- 16. Scarlet fever, 2 cases; Typhoid fever, 2 cases; 1 death.

W. W. Rouse. Health Officer.

- 1. AMELIA.
- 400.
- No expense during the year.
- Does not receive pay.
  No meetings held during year.
- 6. No investigation required.
- Noue. 8. Yes.
- Sanitary condition of school house good. We were troubled with the well. No contamination.
  - 11. Vaults above ground.
  - 12, About one to two hundred feet
- from house.
- 14. This town not incorporated so cannot be regulated.
- 15. I believe the present sanitary condition is as good as can be until the town is incorporated, when I think there could be some improvement.

16. Diphtheria and membranous croup, 1 case; 1 death.

DR. W. B. DOAN, Health Officer.

- ARCANUM.
- 1.500.
- 3. Fifty dollars.
- 4. Twenty-five dollars.
- Eight. 5.
- Thirty-five. 6.
- 7. Thirty-five.
- 8. They were.
- 9.
- 10.
- Just medium.
  They do.
  With cement and sewer-pipe. 11.
- 12. One hundred feet,
- 14. They are, 15. It is good except pigs pens, and I think we will have them removed.
- 16. Typhoid fever, 15 cases; 4 deaths.

E. B. HAWLEY,

Health Officer.

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- 1. ARCHBOLD.
- 900.
- 3. Thirty dollars.
- Thirty dollars.
- Two. 5
- I have kept no record. 6.
- 7. All necessary.
- Yes.
- We use the Smead dry closet sys-
- tem. It gives good satisfaction.

  10. No.

  11. Majority are constructed of boards. I have ordered new privy vaults to be constructed of brick and cement.
- 14. Yes.15. Our surface wells should be con-15. demned, hogs should not be allowed in thickly settled portion of village. Open railroad ditch should be sewered.

16. Diphtheria and membranous croup, 9 cases.

> AUGUST RUIHLEY. Health Officer.

- 1. ARLINGTON.
- 750.
- 3. Thirty dollars.
- Thirty dollars.
- Twelve.
- 6. Six.
- 7. All,
- 8. No. No cause. Yes. 10.
- 11. No vaults. Night soil removed.
- 12. No.
- 14. Yes. But kept clean.
- Good with exception of water sup-15. ply, which is not very good.
- 16. Noue.

J. S. ECCLESTON, Health Officer.

- 1. ASHLEY.
- 500.
- Fifty dollars. 4.
- Four.
- 8. Yes.
- 9. In good sanitary condition. Clean and well ventilated.
- 10. Yes.
- 11. Surface boxes are mostly used. Contents removed and buried.
- 12. The law is enforced in this particular
- 14. Yes, but are required to be kept in good condition and offensive matter removed frequently.
- 15. Sanitary condition good. Increased surface drainage would do good. Careful observance in keeping collections of filth etc. out of water courses.

DR. H. N. COOMER,

Health Officer.

- 1. ASHVILLE, OHIO.
- 2. 800.
- Twenty-five dollars. 3.
- Fifteen dollars. 4.
- 5. Three.
- 6. Twenty.
- Fifteen. 7.
- 8. No.
- 10. Yes.
- 11. If within 50 feet of any well or source of culinary water supply, of brick well connected; beyond that distance, brick or boards or boxes. Option of owner.
- 12. Fifty feet.
- 14. Emphatically no.
- 15. Sanitary condition is good. The watchful eye of health officers will always be open for the still better improvment of our sanitary condition.

16. Scarlet fever, 6 cases; typhoid fever, 10 cases, 3 deaths.

> John Johnson, Health Officer.

- 1. ATHENS.
- 3,500.
- 3. Two hundred and twenty-five dollars.
  - 4. One hundred dollars.
  - 5. Twenty.
  - 6. Great many.
  - 7. All were abated.
  - 8. Yes.
- The buildings were O. K. New 9. sewer connections were made.
- 10. We do.11. No vaults allowed on line of sewer. Off line of sewer 6 feet deep, hard brick, laid in cement and cemented inside and outside.

- 12. No.
  14. No.
  15. Sanitary conditions never better. Extension of sewerage system needed.
- 16. Diphtheria and membranous croup, 2 cases, 1 death; scarlet fever, 24 cases. typhoid fever, 5 deaths; whooping cough, 2 deaths.

Dr. J. L. HENRY, Health Officer.

- 1. BARBERTON.
- 2. 3,500.
- Two hundred and fifty-seven dollars and sixty-eight cents.
- One hundred dollars.
- 5. Twenty-five.
- 6. Seventeen.
- 7. Seventeen.
- 8. Yes.
- 9. Good.
- 10. Yes.

11. Of brick and cement.

14. Yes. If kept in sanitary condition.15. The sanitary condition is fair. The

main sewer will likely be extended.

16. Diphtheria and membranous croup, 3 cases, 1 death; typhoid fever, 1 case.

I. C. DAVIDSON. Clerk.

1. BEDFORD.

1,500.

3. Sixty-five dollars.

4. Forty-five dollars.

5. Five.

6. One hundred and seventy-five.

7. About one hundred and seventyfive.

8. Only one.

That is well ventilated and kept in 9. good sanitary condition.

 No.
 They all stand on the ground except two.

12. No, but they are mostly at back

end of lot.

14. Yes, three on the outskirts of the village, by special permit, to be kept in sanitary condition.

15. I consider that Bedford is in as good sanitary condition as can be. The only thing we ought to have done is a sewer through the village.

16. Scarlet fever, 16 cases; typhoid fever, 4 cases.

C. W. KERSLAKE, Health Officer.

- 1. BELLEFONTAINE.
- 2. 8,000.
- 3. About \$300.
- 4. \$150 per year; sanitary police \$100 per year.

  - 5. Five,6. About 200.
- 7. All of them-except that of 'Possum Run.
- 8. Yes.
  9. Fairly good, not absolutely perfect.
  10. Yes, if necessary.
  11. Just the ordinary vault, unless close to a well of water when they must be built of brick or stone and made water tight.
- 12. Yes.
- Fifty feet.
- 14. They have been for the past two years.
- 15. Sanitary condition is as good as it can be with no system of sewerage. A good system of sewerage, and all the inhabitants to use city water, the very purest of water.

16. Diphtheria and membranous croup, 39 cases, 5 deaths; scarlet fever, 9 cases; typhoid fever, 18 cases, 3 deaths' whooping cough, 10 cases.

> Dr. C. W. Heffner, Health Officer.

- 1. BELLEVUE.
- 2. 4,000.
- About ninety dollars by council.
- Fifty dollars.
- 5. Monthly.
- About twelve.
- 7. All that were nuisances.
- 8. No.
- 10. No.
- 11. No fixed rule.
- 12. No wells in corporation except one or two.
- Yes, if not a nuisance. 14.
- 15. Fair.
- 16. Diphtheria and membranous croup, 9 cases, 5 deaths; scarlet fever, 1 case.

JESSE VICKERY, Secretary.

- 1. BELMONT.
- 500.
- Seventy-five dollars.
- Twenty dollars.
- 5. Five.
- 6. Fifteen.
- 7. Fifteen.
- Yes.
- 9. Normal.
- 10. No.
- 11. Pits.
- 12. No.
- 14. Yes.
- 15 Very good.
- Whooping cough, two cases; one 16. death.

DAVID S. PIERCE. Health Officer.

- 1. BETTSVILLE.
- 650.
- About ten dollars.
- Five dollars.
- 5. Three
- All of the nuisances in the town.
- All of them. 7.
- 8. Yes.
- Ω. In first-class condition.
- 10. No.
- 11. The old fashioned way but can be easily kept clean.
  13. There are none within seventy-
- five feet.
- 14. Yes, but only allowed four hogs at the most. The pens are looked after every week.

15. The sanitary condition is firstclass. We have not a case of sickness in the corporation.

16. Typhoid fever, one case.

R. R. RIDLEY,

Clerk.

- 1. BLOOMINGBURG.
- 750.
- Twenty-seven dollars.
- Twenty-seven dollars.
- 5. Four.
- Twenty-five.
- Twenty-five.
- Yes.
- In good condition.
- 10. No.
- 11. Walls and boxes.
- 12. Yes.

- 13. Fifty feet.
- Permitted when in good sanitary 14. condition.
- 15. Our village is in good sanitary condition, well drained, with good condition, streets, and private property is well looked after.
- 16. Typhoid fever, seven cases; measles, eight cases.

L. DELLINGER, Health Officer.

- 1. BOWLING GREEN.
- 6,000.
- About three hundred.
- Ten dollars per month.
- Summer once a week, winter once a month.
  - 6. About one hundred,
  - All of them.
  - 8. Examined by a committee.
  - All in very good condition.
- 10. They do.11. With boxes or buckets on top of ground. No vaults allowed.
- 12. We do not.
- As far as possible. According to length of lot.
- We do not.
- 15. The sanitary condition of our town is fairly good, but we need a thorough system of sewerage. Our board think it would be a great benefit to our town.
- 16. Diphtheria and membranous croup, 3 cases, 1 death; scarlet fever, 13 cases; typhoid fever, 26 cases, 5 deaths; measles,

A ORDWAY, Health Officer.

- 1. BRADFORD.
- 1,600.
- 3. Sixty-two dollars.

- Twenty-five dollars.
- 5. Twelve.
- No record. 6.
- Eight to twelve. 7.
- Yes.
- Satisfactory-except small details-9. which were corrected promptly.
- 10.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes-under conditions as to location.
- 15. Fair. Will have an inspection next month.
- 16. Diphtheria and membranous croup, l case, 1 death.

A. F. LITTLE. Health Officer.

- Bradner.
- 1,800.
- Seventy-five dollars.
- 4. Seventy-five dollars.
- 5. Three.
- Twelve. 6. 7. All.
- 8. Yes.
- 9. All right.
- 10. Yes.
- Water-tight when within fifty feet 11. of a well.
- 12. Yes.
- 13. Fifty feet unless water-tight.
  - Yes.
- 16. Not very good. More interest should be taken by the board. We have no place for a dumping ground. Our village is close run for funds.
  16. Diphtheria and membranous croup,

4 cases, 1 death; typhoid fever 4 cases, 1

J. W. WYANT,

Clerk.

- 1. BRINKHAVEN.
- 500.
- Nothing. 3.
- Nothing.
- 5. One each month.
- 6. Two.
- 7. Two.
- Yes. 8.
- 9. Ventilation and general sanitary condition good.
- 10. No.
- 12, No.
- 14. In some parts.
- 15. General sanitary condition good, natural drainage good, general health good.

J. B. CLARK. Health Officer.

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- 1 BROOKFIRLD.
- Not to exceed five dollars.
- Up to date the bills have not been settled.
  - 5. Two.
  - 6. Two.
  - One. 8.
  - No.
- 10. No.
- 12. No ruling.
- 14. We have no corporation.
- 15. Good.
- 16. Diphtheria and membranous croup one case; scarlet fever, one case.

A. W. McIntosh. Health Officer.

- BRYAN.
- 3,800.
- One-hundred twenty-five dollars. Burying dead animals and buying disinfectants.
- 4. One-hundred and twenty dollars per year.
  5. Three.

  - A great many, no record kept.
  - All worthy of consideration.
- They are thoroughly fumigated each vacation.
- They are at all times in a healthy condition, well ventilated and properly heated at an uniform temperature. Good water to drink.
- 10. Do not only by the health officer.11. Some by brick and stone, some by portable boxes or drawers, and many on the bare earth but all are very well cleaned and removed to quarantine grounds, under all circumstances every receptacle for excrements must be thoroughly disinfected with pulverized clay dry; wood or coal ashes, quick lime, copperas etc.
- Not allowed near wells. 12.
- 13. I know of no limit.
- 14. They are but not to be a nuisance.
- 15. Our sanitary condition is fair and by close observers pronounced far above ordinary, what our town needs, is ample sewerage, broad cement gutters for surface drainage and paved streets; we are blessed with fine water works and ample supply of water. Electric light, magnificent school buildings and churches, but cursed with saloons.
- 16. Diphtheria and membranous croup, one case, one death; scarlet fever, seven cases; typhoid fever, three cases; no deaths.

N. VINEYARD. Health Officer.

- 1. BUTLER.
- 600.
- No payment as yet.

- Fees only.
- None. 5.
- 6. Sixty-one.
- Forty. 7.
- 8. Yes.
- 9. Good. 10. Yes.
- Left to discretion of health officer. 11.
- Yes, not less than sixty feet. 12.
- 14. Yes.
- 15. Condition good at present. No new improvements necessary.
- 16. Diphtheria and membranous croup. 5 cases, 4 deaths.

DR. J. M. McLaughlin, Health Officer.

- 1. Byesville.
- About 1,200.
- Eight dollars and forty-five cents.
- 4. Five dollars and forty-five cents.
- 5. I can't tell.
- ß. I don't know.
- No.
- The board does not furnish me 9. with books of any kind, so I can keep no records.
- 10. No.
- 11. Mostly on top of ground or hole.
- 12. No.
- 14. Yes.
- There is room for improvement, but I cannot get the Board to do anything; they have not met since last November, nor will they meet.

C. T. BARNETT. Health Officer.

- 1. CADIZ.
- 2,000.
- About fifty dollars.
- Twenty-five dollars.
- 5. Six or eight.
- A number of pig-pens. They comprise the most frequent cause of complaint.
  - 7. A few temporarily.
    - Yes.
- In very fair condition. Save one. A school for colored children kept in the basement of their new church. Ventilation imperfect, and rooms dark, necessitating use of gas light during cloudy
- 10. Not without special attention is called to them.
- 11. Stone walls cemented. There are but few constructed as our village does not grow rapidly. Improvements that have been made are of the best character. and free from objectionable construction.
- 12. When consulted.
- 13. About 50 feet.



Yes. 14.

While the sanitary condition of our village cannot be considered bad, there is room for improvement, Imperfect sewerage, pig-pens and a tannery in our own incorporate limits are open to objection.

16. Diphtheria and membranous croup, 1 case, 1 death; typhoid fever, 1

case, I death.

M. J. Lyons, MD., Health Officer.

- 1. CALDWELL.
- 1,400.
- One hundred and fifty dollars.
- Fifty dollars.
- Seven.
- From ten to twelve.
- 7. All.
- 8. Yes.
- 9. Nothing to brag of.
- 10. Ves.
- We don't allow vaults in the town. Contents drop on ground and scavenger cleans every thirty days in months of April, May, June, July, August, September and October, then two or three times during winter. We have ground one mile from town where all the garbage is hauled and no one but the scavenger can clean privies or any such work as we require to be placed in the field for garbage.
- 1Ž. We don't allow vaults.
- 14. Five years ago we, (I being a member of the council,) passed an ordinance not allowing hogs in the corporation. But in April 1896, I left the council and the first thing they did was to repeal the hog ordinance, allowing hogs to be kept.

15. Our town is in a good shape except the keeping of hogs, which was a great bother to many last summer.

16. Scarlet fever, cases 3; measles, 40; whooping cough, 11.

> O. O. Mckee, M. D., Health Officer.

- 1. CALEDONIA.
- 900.
- Twenty-five dollars.
- Twenty-five dollars. 5. Five.
- Two.
- 7. Two.
- Only by the board of education.
- Good.
- 10.
- 11. With a dry earth closet or drawers.
- 12. No.
- 14. Yes; but are required to be kept clean.

- 15. Good.16. Diphtheria, four cases, one death; typhoid fever, one case.

J. W. PATTEN, Health Officer.

- 1. CANAL FULTON.
- 1,500.
- Twenty-four dollars.
- Twenty dollars.
- 5. Six.
- 6. None.
- They were. 8.
- 9. In good condition.
- 10. Yes.
- 11. Walled up with plank.
- 12.
- They do. Sixty feet. 13.
- 14. Yes.
- The sanitary condition of our town is good. We know of no change that would improve it.

16. Diphtheria and membranous croup, one case

GEORGE BECKER. Health Officer.

- 1. CANAL WINCHESTER.
- Seventy-five dollars. 3.
- 4. Thirty-dollars.
- 5. Twelve
- Fourteen.
- 7. Fourteen. Yes.
- In good condition. 10, Yes.
- 11. Tight fitting board lining.
- 12. Yes.
- 13. Not less than fifty feet.
- 14. Yes.
- 15. Present condition good.

Dr. W. S. GAYMAN, Health Officer.

- 1. CANFIELD.
- 675.
- One dollar and eighty cents.
- Seventy five cents.
- Two.
- None to investigate.
- 7. None.
- 8. If so, no report to me.
- 10.
- With pits and boxes.
- 11.
- 12. No. 14. Yes.
- 15. Good, do not know that any improvment can be made.
- 16. Scarlet fever, 1 case.

A. D. WOOD, Health Officer.

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- CANNELVILLE.
- 200.
- About six.
- 6. Privy vaults and hog pens.
- 8. Yes.
- 9. Good.
- 10. Ves
- Stone, brick or plank. 11.
- 12. Yes.
- 13. Hundred feet or more.
- 14.
- 15. Sanitary condition is pretty good as our village is scattered and pig pens are kept from vicinity of wells.
- 16. Diphtheria and membranous croup. 1 case, 1 death; typhoid fever, 2 cases.

DR. G. B. TROUT.

Health Officer.

- 1. CARDINGTON.
- 1.700.
- About one hundred dollars.
- Thirty-five dollars per year.
- 5.
- в. Twenty-five.
- 7. All but one.
- 8. Yes.
- In good condition. 9.
- 10. No.
- Boxes and shallow vaults. 11.
- 12. No.
- Yes. 14.
- 15. In fair condition, with exception of drainage which empties into the river from all parts of town. Large privy vaults empty into the river.
- 16. Typhoid fever, 10 cases, 2 deaths.

W. H. VAN HORN,

Health Officer.

- 1. CAREY.
- 1,900.
- One hundred and ten dollars.
- Sixty dollars per year.
- 5. Twelve.
- 6. Nineteen.
- 7. Eighteen.
- Yes.
- 9. Our school building is in a very good sanitary condition. We recom-mended some changes which were made and it has made a great improvement.
  - Yes.
  - With a drawer or cemented vaults. 11.
- 14. Yes, but they must be 150 feet from a residence and kept clean.
- 15. The sanitary condition of our village is good. We need some sewerage to make it complete in every respect.
  - Typhoid fever, two cases.

DR. I. N. ZEIS. Health Officer.

- CARTHAGE.
- 2,500.
- 3. One hundred and fifty-six dollars and fifteen cents.
  - One hundred and fifty dollars.
  - Six.
  - 6. Twenty.
  - Twenty.
- Yes, and thoroughly disinfected every Saturday.
  - 9. In splendid condition.
- 10. Yes.
- 11. Privy vaults constructed shall not be less than ten feet deep with walls of stone or brick eight inches or more in thickness. "Cess pools"; "same rule."
  - 12. Yes.
- 13. Our section reads "as far as possible."14. Yes, but they must be at a distance of two hundred feet from any dwelling.
- 15. We need a sewerage system very much as but very few of the streets are properly graded which causes the water to lie and evaporate.
- 16. Diphtheria and membranous croup, cases, 13, deaths, 5; scarlet fever, cases, 9; deaths, none; typhoid fever, 4 cases; 2 deaths; measles, 20 cases; deaths, none; whooping cough, 7 cases, deaths, none.

HARRY ROSS, Health Officer.

- CATAWBA.
- 2. 275.
- 5. Two.
- 6. Three.
- 7. Three.
- 8. No.
- 10. No.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. In good condition.
- 16. Diphtheria and membranous croup, 7 cases, Ì death.

DR. T. D. BEACH, Health Officer.

- 1. CEDARVILLE.
- 1800.
- 3. One hundred and twenty dollars.
- 4. Seventy-five dollars.
- 5. Fourteen.
- в. Five.
- 7. Five.
- 8. Yes.
- Good. A 1. 9.
- 10. Yes.
- 11. By tight box.
- 12. Yes.
- 13. Fifty feet.
- Yes, but pen must be at least eight inches above ground and space beneath kept thoroughly clean from all filth.

15. Good. No changes that I know of. 16. Typhoid fever, 2 cases; two deaths.

> S. D. KILDOW. Health Officer.

- CRLINA. 1.
- 3,600.
- 3. Ninety-eight dollars.
- Fifty dollars.
- Five.
- 6. Sixty-three.
- Sixty-three.
- Yes.
- 9. In a very satisfactory condition from a sanitary standpoint.
- 10. Yes.
- Brick vault cemented, bottom 3 inches of first class cement foundation, upon which must be built of hard brick
- 12. The distance is limited by the board.
- 13. Thirty feet.
- 14. Yes, but must be kept clean.
- 15. Present sanitary condition good. The board are constantly on the lookout for anything prejudicial to the general health. I can think of no improvements deemed necessary at this time.
- 16. Diphtheria and membranous croup, 6 cases; scarlet fever, 9 cases; measles, 3 cases; whooping cough, 14 cases.

DR. L. P. LISLE.

Health Officer.

- 1. CENTERBURG.
- 3. Do not know, would require council report.
- Twenty-five dollars salary, with extra fees.
  - Six.
  - Don't know. 6.
  - 7. Four.
- Buildings well ventilated, heating apparatus, etc., good, grounds clean, dry and high, water supply good.
- Yes.
- State law observed, disinfected, either dry earth or lime used, and no accumulations allowed unless above is observed.
- 12 Yes.
- State law observed. 13.
- No. 14
- We think our village is one of the cleanest in the state, and without water and sewerage, do not know where we could change to make much improvement.
  - Typhoid fever. 2 cases.

A. T. BORDEN. Health Officer.

- 1. CHAGRIN FALLS.
- Twenty-six dollars and sixty cents.
- Eighteen dollars and sixty cents. 4.
- 5. Five.
- 6. Twenty-three.
- 7. Twenty-three.
- 8. Yes.
- 9. Good.
- 10. Yes.
- 11. Dry earth plan.
- 12. Yes.
- Fifty feet. 13.
- 14. No.
- 15. Present sanitary condition good. Expect in the near future to have a system of water works. Pure spring water.
- 16. Diphtheria and membranous croup, 11 cases, 1 death; typhoid fever, 5 cases.

DR. W. H. WALTERS. Health Officer.

- 1. CLIFTON.
- 300.
- Nothing. 3.
- 4. Nothing.
- 5. Four.
- 5. Four. 7. Four.
- 8.
- Yes.
- 9. Fair condition. 10. No.
- 11.
- Vaults three to ten feet deep.
- 12. Yes.
- 13. One hundred feet.
- 14. Yes.
- 15. Very good.

DR. D. E. SPAHR. Health Officer,

- 1. CLARINGTON.
- 3. Nothing but salaries of health officer and clerk.
- 4. Twenty dollars per annum, payable quarterly.
  - Aim to meet monthly.
  - The entire corporation.
  - 7. Six
  - Yes.
- 9. In good condition except privy vaults, which were replaced by new ones, old ones disinfected and thoroughly filled and covered.
- 10. Yes.
  11. Vaults; regularly disinfected and when near full "night soil" removed
- 12. Yes.
  13. Varies according to lay of ground
- and surroundings. 14. Yes; required to be kept in good sanitary condition and regularly inspected.

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15. Good; No suggestions as to changes or improvements; think sani-

tary condition as good as can be made.
16. Diphtheria and membranous croup, 11 cases; scarlet fever, 19 cases; typhoid fever, 2 cases; measles, 53 cases; whooping cough, 29 cases.

DR. JOHN E. MORRILL. Health Officer.

CLYDE.

3,000.

About one hundred dollars. 3.

Eighty-four dollars.

- 5. A number of special calls—can't say.
  - 6. Aboat 100.
  - 7. About 50.
  - Yes.

Good. One of the pupils was taken sick with scarlet fever; as a precaution all rooms were fumigated.

10. Yes, as regards the distance from

source of water supply.

11. Great many dry vaults, which I believe to be the best; same connected with sewers; few water-tight; others simply a hole dug. Many are adopting the dry closet. 12. Yes.

13. Fifty feet, except it be water tight.

14. Are prohibited between 30th day of June and 1st day of October in each

- 15. The sanitary condition good; except the Buckeye street sewer from M. E. church west, distance of about thirty rods, has not got enough fall. I think it ought to be relaid.
- 16. Scarlet fever, 12 cases; typhoid fever, 20 cases, 4 deaths; measles, 2 Cases.

F. G. TUTTLE. Health Officer.

1. COLLINWOOD.

3.000.

- 3. General expenses, \$207.73; night-soil disposal, \$997.91.
  - One hundred dollars.
  - Nine.
- There were 57 notices served, but a number of notices were served upon the same nuisance.
  - 8. Yes,
  - 9. Good.
- 10. Yes.
- 11. Water-tight boxes and brick cemented vaulus.
- 12. Yes.
- 18. Forty feet.
- 14. No, except in isolated places.
- 15. The present sanitary condition of the village is good. We seek to improve

it by having a system of water drainage constructed.

16. Diphtheria and membranous croup, 1 case, 1 death; scarlet fever, 2 cases, typhoid fever, 11 cases; 4 deaths.

DR. ALVAN L. WALTZ, Health Officer.

- 1. COMMERCIAL POINT.
- Twenty-six dollars.
- Twenty-four dollars.
- 4. 5. Six.
- 6. Three.
- 7. Three.
- 8. Yes.
- 9. The building is a new one just built within a year and a half. It is in good sanitary condition.

10. No.

11. Holes from three to four feet dug in the ground and the privy built over it.

12. No.

14. Yes.

15. Our present sanitary condition is as good as might be expected under the circumstances.

Diphtheria and membranous croup, 7 cases, 2 deaths; scarlet fever, 3 cases; typhoid fever, 32 cases, 2 deaths.

W. A. Smith, Health Officer.

- 1. CONNEAUT.
- 2. 5,000.

3. Six hundred and fifty-one dollars

and twenty cents.

- 4. Two hundred and forty-three dollars and thirty cents including expenses to meeting of local boards at Columbus, Ohio.
- 5 One or more meetings were held each month.
- Do not know exact number, but all orders of the board were carried out with little difficulty.

- 7. All reported to board.8. No attention has been paid to school houses by Board of Health.
- 10. It does, there are very few vaults in the village.
- 11. Sec. 2, under head of Nuisances, of village code, reads "No privy vault shall be constructed within the corporation unless by special permission of the Board, and a special permit is granted for that purpose.

12. It does not. 14. Yes. Village has an ordinance prohibiting same. But no attention is given the matter, and there are at present forty hog-pens and ninty-six hogs being kept in the corporation, according to report of sanitary police.



- 15. The sanitary condition of Conneaut is better than it has been for a number of years. A house to house inspection was carried on, during the last six months of '96, and a great deal of cleaning up resulted.
- 16. Diphtheria and membranous croup, I case; scarlet fever, 82 cases, 4 deaths; typhoid fever, 27 cases, 2 deaths; measles, 6 cases; whooping cough, 24 cases, 3 deaths.

Dr. D. S. Cossitt, Health Officer.

- 1. Convoy.
- 2. 800.
- 3. Three dollars.
- 4. Nothing.
- 5. One.
- 6. None.
- 8. Yes.
- 9. Good.
- 10. Yes.
- il. Vaults in the ground. Made from lumber, usually a few brick ones.
- 12. No.
- 14. Yes.
- 15. Good. Here all privy vaults cesspools, garbage piles, manure piles, removed and disinfected twice a year.
- 16. Diphtheria and membranous croup, 2 cases; typhoid fever, 5 cases, 1 death; whooping cough, 15 cases.

DR. R. L. CROOKS, Health Officer.

- 1. Coshocton.
- 2. 5,000.
- 3. Ten dollars and forty-five cents for disinfectants. Township trustees have assisted (through the health officer) some of the sick poor while quarantined.
- 4. Thirty dollars per month. All sanitary duties are performed by the health officer.
  - 5. Eight.
  - 6. One hundred and forty nine.
  - 7. One hundred and forty-five.
  - 8. No.
  - 10. It does.
- 11. Privy vaults are made at least eight feet deep and walled up with brick or stone and cemented inside.
- 12. Yes.
- 13. No less than forty feet.
- 14. During winter months only. (From
- Nov. Ist. to April 1st.)
- 15. The sanitary condition of our village is fair. We need more sewerage. A proper method of disposing of garbage and night-soil. A more complete extension of water mains, thus doing away with wells.

- 16. Diphtheria and membranous croup, 6 cases, 3 deaths; scarlet fever, 4 cases; typhoid fever, 8 cases, 1 death; measles, 1 case
  - J. E. FOSTER V. S., Health Officer,
  - 1. COVINGTON.
  - 2. 1,800.
- 3. Twenty-four dollars and forty-six cents.
  - 4. Fifty dollars.
  - 5. Three.
  - 6. Thirty-seven.
    - . Thirty-seven.
- 8. We have a new house with modern appliances.
- fl. Sec. 14. No privy vault, cesspool or reservoir into which a privy, water-closet, stable or sink, is drained, except it be water-tight, shall be established or permitted within fifty (50) feet of any well, spring or other source of water supply used for drinking or culinary purposes.
- Sec. 15. All privy vaults hereafter constructed shall be of stone or hard brick, with walls and bottom not less than eight (8) inches thick, laid with full joint of cement mortar, and be cement plastered inside, so as to be perfectly water-tight.
- Sec. 16. All privy vaults, cesspools and reservoirs for the accumulation of fecal and filthy matter, shall be emptied at such times as the board of health may direct.
- Sec. 17. The cleaning of privy vaults and the removal of night soil, swill, garbage and other filthy matter, shall be done only at such time and in such manner as the board of health may specify; and such substances shall not be deposited within the corporate limits.
- 12. Yes.
- 13. Sec. 14. 14. Yes.
- 15. The sanitary condition is good, but could be made much better by the abandonment of all old privy vaults and new ones constructed according to the regulations of the board of health.
- 16. Diphtheria and membranous croup, 1 case; typhoid fever, 2 cases; whooping cough, 11 cases.

GEORGE FLAMMER, Health Officer.

- 1. CUMBERLAND.
- 2. 600.
- 3. Nothing.
- 4. Nothing.
- . Two.
- 6. One.

- 7. One.
- No.
- 10. Yes.
- 11. Walled and cemented,
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. Condition is fair. We have no improvement we deem necessary at this time.
- 16. Scarlet fever, 1 case; whooping cough, 1 case.

G. E. McEndree. Health Officer.

- 1. CUSTAR.
- 350. 2
- Ten dollars.
- Ten dollars.
- 5. Six.
- 6. Four.
- 7. Four.
- No sir. Just being built.
- 10.
- 11. With box, so they can he hauled out, and buried.
- 14. Yes.
  15. Very good, with the exception of elevators, allowing dust from corn to gather until there are wagon boxes of it there, which causes a bad smell.
- 16. Diphtheria and membranous croup, 12 cases, 2 deaths; scarlet fever, 6 cases; typhoid fever, 7 cases, 1 death measles, 8 cases; whooping cough, 10 cases.

Dr. J. F. Noble, Health Officer.

- 1. CUYAHOGA FALLS.
- 2. 3,500.
- 3. Nothing.
- 4. Twenty-five dollars.
- 5. Only a few.
- 6. Twelve.
- Twelve. 7.
- No.
- 10. Yes.
- Of hard brick. Walls and bottom 11. laid 8 inches thick in cement mortar.
  - 12. Yes.
  - 13. Not less than fifty feet.
- 14. Yes.
- 15. The sanitary condition is good. The improvement necessary is a sewer system.
- 16. Typhoid fever, 1 case, 1 death.

I. N. REID.

Health Officer.

- 1. DANVILLE.
- 500.
- Nothing.
- Nothing.
- Two.

- Eight or ten.
- 7. All.
- Yes. 8.
- 9 Good.
- 10. No.
- 11. Usually a pit six or eight feet deep is dug and boxed with boards.
  12. Yes.

  - 13. One hundred feet.
  - 14. Yes.
  - We think good.

DR. C. R. BRADFIELD, Health Officer.

- DEGRAFF.
- 1,200.
- 3. Seventeen dollars and ten cents.
- 4. Fifty dollars per annum.
- Twelve regular. 5.
- в. Thirty.
- 7. Most of these.
- 8.
- The building is comparatively new, eight large rooms beside offices and halls are kept clean and well ventilated. Difficult to regulate the light in two of the rooms.
- 10. They tried to, but failed.
- 11. Open pits (not water-tight,) except in a few cases. A cemented vault with the necessary out building over this open pit. In most cases the subsoil drainage is so complete that these need cleaning rarely and thus it seems as though shallow wells must be polluted
- 12. Yes, but has not been rigidly enforced.
- 13. Fifty feet.
- 14. Yes, so long as the hog and his
- keeper are careful. 15. It is fair with exception of condition of privy vaults. We need measures
- adopted by the board or council to regulate the construction of privy vaults, keeping of pigs. There is need of knowledge of the laws of quarantine during epidemics.
- 16. Scarlet fever, 13 cases, 1 death; typhoid fever, 8 cases, 1 death.

DR. LORAN D. CRAIG, M. D. Health Officer.

- DENNSION. 1.
- 3,000.
- Fifty dollars.
- Eight. 5.
- One hundred, sixty-seven.
- 7. Over one hundred.
- No.
- 10. Ves.
- 11. Water-tight, brick laid in cement.
- 12. Regulated by ordinance of council.
- 13. Twenty-five feet, I believe.
- 14. No.

15. The town is in a fairly good sanitary condition except for want of sewerage in some parts and some bad privy vaults.

Diphtheria and membranous croup, 14 cases, 2 deaths; scarlet fever, 28 cases, 3 deaths.

Dr. L. H. Hughes, Health Officer.

- 1. DOYLESTOWN.
- 2, 1,200.
- Forty dollars.
- Thirty-five dollars.
- Ten.
- All that were reported.
- 8. No.
- 10. Yes
- 11. Brick or drawers so that they may be easily cleaned. That is, all new ones.
- 12, Yes.
- 13. Pifty feet,
- 14. Yes.
- 15. Very good. The village is situated upon a hill and the drainage is in every direction away from the central part of the town. Water works and better sewers would be of benefit.

16. Diphtheria and membranous croup 2 cases, 1 death; measles, 20 cases.

DR. A. E. STEPFIELD,

Health Officer.

- 1. DRESDEN.
- 2. 1,700.
- Seventy-five dollars.
- Sixty dollars.
- Seven regular meetings.
- б. Forty-three.
- All of them. 7.
- 8. Yes.
- The very best.
- 9. 10. No.
- 11. Principally of brick, limestone or two inch plank.
- 12. No.
- 14. Yes.
- The present sanitary condition of our town is very good, and great care is being observed by our Board to keep it
- 16. Diphtheria and membranous croup, 4 cases; scarlet fever, 3 cases; typhoid fever, 2 cases.

GEORGE SPARKS. Health Officer.

- 1. DUPONT.
- 500.
- Five dollars.
- Nothing.
- Two.

- Nothing but weed mowing.
- 8. Yes.
- 9. Good. 10, Yes.
- 11. Two inch plank.
- 12, Yes.
- 13. Fifty feet.
- 14. Yes.
- The sanitary condition is good, the 15. village is scattering and water good.
- Diphtheria and membranous croup, 4 cases, 2 deaths; scarlet fever, 1 case.

ISAAC STALEY, Health Officer.

- EAST PALESTINE
- 2,200.
- 3. Forty-five dollars and eighty cents.
- 4. Thirty dollars.
- Two.
- 6. Five.
- 7. All of them. Yes.
- 9.
- In good sanitary condition.
- No. 10.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes. Our present sanitary condition is very good. A good system of sewerage would greatly improve the sanitary condition of our village.
- 16. Diphtheria and membranous croup, 8 cases, 4 deaths; scarlet fever, 9 cases; typhoid fever, 8 cases, 2 deaths; Measles, 2 cases.

W. H. Olloman, Health Officer.

- 1. EL DORADO.
- 500.
- Twenty-five dollars.
- Nothing.
- 5. Eight.
- Privies were all.
- 8. Yes.
- In good condition.
- 10. Yes.
- 11. Made of brick or stone not less than eight inches thick cemented inside and out. We use tight boxes in privies instead of vaults, and have them emptied often. • Only one vault in the village and that constructed according to recommendation of the State Board of Health.
- 12. No.
- 14. Yes.
- 15. The sanitary condition is good. The only sanitary measure that gives us any trouble is the privies.

Dr. J. A. Davisson, Health Officer.

- 1. ELIDA.
- 350.
- Nothing. 3.
- 4. Nothing. Four. 5.
- Three.
- 7. Three.
- They were.
- Were found in good condition.
- 10. Not as a general rule.
- 11. By vaults from three to four feet deep, so arranged as to allow being cleaned yearly.
- 12. They are all about ten to twenty feet.
- 14. They are prohibited.
- The present sanitary condition of 15. our village is satisfactory to all our people at present. We see or think of nothing to make improvements on.
- 15. Diphtheria and membranous croup, cases 1, deaths 1; typhoid fever, cases 3, deaths 1; whooping cough, cases 6.

A. J. Myers, Health Officer.

- 1. ELMWOOD PLACE.
- 2. 3,000.
- Twelve hundred and twenty-six dollars and seventy cents.
  - Ninety-six dollars.
     Eleven.

  - 6. Fifteen.
  - Fifteen.
  - Not by order of Board of Health.
- Superintendent of public school reports all rooms in fine sanitary condition; also fumigated all rooms during school term.
- 10. Yes. 11. All privy vaults hereafter constructed shall be of stone or hard brick, with walls and bottom not less than eight (8) inches thick, laid with full joint of cement mortar, and be cement plastered inside, so as to be perfectly water-tight.
- 12. No privy vault, cess pool nor reservoir into which a privy, water closet, stable or sink is drained, except it be water-tight, shall be established within fifty (50) feet of any well, spring or other source of water supply used for drinking or culinary purposes,
- 14. Yes.15. Sanitary condition very good. We need a better supply of water than that now obtained from wells.
- Diphtheria and membranous croup, cases 7, deaths 4; typhoid fever, cases 2, deaths 1. Measles, cases 3.

JOHN H. BART, Health Officer.

- 1. FAIRPORT.
- 2. 1,574.
- 4. Ninety dollars.
- 5. Two.
- Thirty-one. 6.
- Thirty-one.
- Yes. 9. In good condition, only crowded for room.
- 10. No.
- 11. In every way.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. Sewerage, or have all privies with a box and on top of ground.
- 16. Typhoid fever, cases 26, deaths 1.

A. J. McCue, Health Officer.

1. FAIRVIEW.

- 3. None.
- None. 4.
- 5. Six.
- 6. Exact number not known.
- 7. All reported.
- R Yes.
- 9. Good.
- 10. Yes.
- 11. To be not less than four feet deep.
- 13. One hundred and twenty-five to one hundred and fifty teet.
- 14. Yes, 15. Good.
- 16. Diphtheria and membranous croup, cases 3, deaths 1; typho d fever, cases 1.

W. N. Brown,

Health Officer.

- FELICITY.
- 800.
- Fifty dollars.
- 4. Twenty-five dollars.
  - Eleven.
- Thirty. в.
- All of them. 7.
- Yes.
- 9. Good; yes. Built with air chambers and good ventilation.
- 10. No; we have only six in town and they will be filled up
- 11. With pits four feet deep. All others are on top of ground and cleaned and buried two to four times a year.
  - 12. No.
- 14. Yes; they are kept thoroughly cleaned and kept well sprinkled with
- lime, and offal buried
  15. The present sanitary condition of our village is excellent, well drained and kept clean and all refuse and offal carted away.

PRICE T. FRE, Health Officer.

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- 1. FRANKLIN.
- 3,000.
- About four hundred dollars.
- One hundred dollars.
- Ten.
- 6. No record kept. A general inspection made each month.
- 7. Eighty-five by order of health offi-A great many by request of sanicer. tary police.
  - Yes.
- South and west buildings in good condition. Center building fair.
- Walled with brick er stone. Must be ten feet deep.
- 12. Yes.13. Not less than thirty feet.
- Yes; but must be kept in good condition.
- 15. The sanitary condition of our village is good and should continue so with the same precaution as in the past. 16. Diphtheria and membranous

croup, cases, 35; deaths, 16; scarlet fever, cases, 7; deaths, 1; typhoid fever, cases, 1; deaths, 1.

> DR. N. A. HAMILTON, Health Officer.

- 1. FRAZEYSBURG.
- 700.
- 3. Nothing.
- 4. Nothing.
- 5. Three.
- 6. Two.
- 7. Two. 8. No.
- 10. No. The town council regulates privy vaults.
- 11. The ordinance requires brick or stone vaults made water tight and not rearer than fifty feet to a well.
- 14. Yes.
- 15. The sanitary condition of our village is fairly good; a good many cases of lagrippe and pneumonia, but not caused by the want of proper sanitary regulations.
- 16. Typhoid fever. cases, one; whooping cough, 10.

SAMUEL MCGINNIS. Health Officer.

- 1. FREEPORT.
- 2. 800.
- 3. Thirty-five dollars and eighty-five cents.
  - 4. Fifteen dollars.
  - 5. SIX.
  - 6. Tweive.
- 7. All.
- No.
- 10. Yes, to a certain extent.
  - 3 Ex. Doc. 15

- We have an ordinance that no privy shall be placed over a vault or excavation.
- 1*z*. Yes.
- 13. 100 ft.
- 14. Yes.
- Fairly good. 15. 16. Whooping cough, 40 cases.

DR. W. A. ZELLARS, Health Officer.

- Geneva.
- 3,000.
- 3 · Twenty dollars.
- 4. Eighteen dollars and seventy-five cents.
  - 5. One.
  - 6. Two.
  - 7. Two.
  - 8. No.
- 10. No.
- 11. In all manner.
- 12. Yes.
- 13. 50 ft.
- 16. Diphtheria and membranous croup, 2 cases; scarlet fever, 3 cases; measles, 12 cases.

M. W. HOLMDEN, Health Officer.

- 1. Georgetown.
- 2 1,800
- 3. One hundred dollars and fifty cents.
  - Fifty-three dollars and fifty cents. 4.
  - Eight.
  - 6. One
  - One.
  - 8. Yes.
  - Good.
- 10. Yes. With box. 11.
- 12. No.
- 14. No.
- 15. Good.
- 16. Diphtheria and membranous croup, l case, l death; measles, l case.

R. B. FEE. Health Officer.

- 1. GERMAN TOWN.
- 1,800.
- Two hundred and fifty dollars.
- Seventy-five dollars,
- 5. Four.
- Fifteen.
- 7. Fifteen.
- 8. They were.
- g In clean and healthy condition.
- 10. Yes.
- 11. Some cement and some brick.
- 12, Yes.
- 13. About sixty feet.

14. There are some but kept clean.

15. The sanitary condition of our village excellent. I don't think any changes necessary.

16. Diphtheria and membranous croup, 5 cases, 1 death; scarlet fever, 11 cases; measles, 16 cases.

SAMURI, A. BAUSMAN, Health Officer.

- 1. GIRARD.
- 2, 2,500.
- 3. Two hundred and fifty dollars.
- One hundred dollars.
- 5. Eighteen.
- 6. Thirty-five.
- 7. Thirty-two.
- 8. No.
- Yes.
- 11. Brick and cement and dry-box.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. The sanitary condition is good, except the sewerage. The present sewer a private one is partly closed and partly obstructed, and should be entirely reconstructed.
- 16. Diphtheria and membranous croup, 3 cases; scarlet fever, 9 cases; typhoid fever, 3 cases.

D. B. WILLIAMS, Health Officer.

- 1. GLENDALE.
- 2. 1,447.
- 3. About two hundred and fifty dollars.
  - 4. One hundred dollars.
- 5. Six. Could not get quorum at other times. Always call meetings monthly.
  - 6. Eighteen.
  - 7. Eighteen.
  - 8. No.
  - 10. Yes.
- 11. SEC. 15. All privy vault or cesspools hereafter constructed shall be of stone or brick, with walls and bottoms not less than eight (8) inches thick, the walls rising six (6) inches or more above the surface of the ground, laid with full joint of cement mortar, and be cement plastered inside, so as to be water-tight.
- 12. Yes.
- 13. Thirty feet.
- 14. Yes.
- 15. Excellent. Only improvement needed is a complete sewerage system and this is not practical until a trunk sewer is constructed down Mill creek valley.

16. Diphtheria and membranous croup, 3 cases, 2 deaths; typhoid fever, 3 cases; measles, 2 cases.

E. A. SAYRE, Health Officer.

- 1. GLENVILLE.
- 2. 4,000.
- 3. Two hundred and thirty-one dollars and fifty cents.
  - 4. One hundred and fifty dollars.
  - 5. Fourteen.
  - 8. Yes.
- 10. Yes.
- 11. The vault is estimated to be within twelve (12) inches of the top, or to the under side of the projecting course. All vaults to have three (3) inches of concrete laid underneath the bottom of the vault, or before the bottom brick are laid. All brick work to be plastered on the outside with one-half (1/2) inch of concrete. Brick to be hard (so-called) sewer brick, and laid in fresh Portland cement.
- 12. Yes.
- 13. Thirty feet.
- 14. No.
- 15. The sanitary condition of the village is not very good, owing to the very urgent need of sewers.

16. Diphtheria and membranous croup, 14 cases, 1 death; scarlet fever, 5 cases; typhoid fever, 2 cases.

EDWIN SELFE,

Clerk.

- 1. GRAFTON.
- . 1,200.
- 3. Thirty dollars.
- 4. Twenty-five dollars.
- 5. Twelve.
- 6. Nineteen.
- 7. Seventeen.
- 8. No. 10. No.
- 10. No.
- 14. Yes.
- 15. It is in fair sanitary condition, and much improved since organizing Board of Health
- 16. Typhoid fever, about 25 cases, no record kept, and no deaths; whooping cough, a number of cases, no record, one death.

Jos. Hartman, Health Officer.

- 1. GRAND RAPIDS.
- 2. 650.
- 3. Nothing.
- 4. Nothing.

- 5. Two.
- Quite a number, but not reported. Four privies ordered cleaned.
- 7.
- No.
- 9. School house in good condition. Warmed by Ruttan or Smead heater, and well ventilated.
- 10. Attempt to do so.
- No. Wells principally artesian.
- 14. Yes, under regulations.
- We think sanitary condition good. Railroad stock pens adjoining school grounds and residences are a menace to the good health of the community.

16. Whooping cough, 6 cases.

WILLIAM MAILEY, Health Officer.

- 1. GRANVILLE.
- 1,500.
- Nothing.
- Nothing.
- Two.
- 6. Four.
- 7. Four.
- No. 10.
- 11. Usually about ten feet deep and walled with an open wall.
- 12. No.
- Yes.
- 15. Owing to a gravel sub-soil I think privy vaults ought to be made watertight and cleaned at intervals or all the wells in town should be closed. Every case of typhoid in the past three years has been a user of well water.
- 16. Diphtheria and membranous croup, 6 cases. 1 death; typhoid fever, 6 cases,

1 death.

Dr. O. J. WOOD, Health Officer.

- 1. GREEN CAMP.
- Three dollars and twelve cents.
- Throwing slop and filth in alleys.
- All.
- 9. Good. We use seven gallons of oil to clean vaults every two weeks.
- 10. No; not as yet.
- Same old plan. Yes.
- 12. 13. Fifty feet.
- Yes.
- 15. Sanitary condition of the village good, but the Marion sewage is emptied into the river which runs through the village and has caused much sickness. It comes in two miles above the village.

I. A. LEAVERTON,

Health Officer.

- 1. GREEN SPRING.
- 1,200.
- 3. Fifty dollars.
- 4. Forty dollars.
- 5. Ten.
- One hundred and fifty.
- 7. All except nineteen.
- They were.
- 9. They are not in good order on account of cold in winter and old and rickety in case of wind storms in summer, and should be condemned in the near future.

They try so to do.

- 11. Our rules provided for dry surface boxes or water tight cement vaults, but the council have repealed a part of the rule and we are at present without a rule in this respect.
- They do. 12.

13. Fifty feet.

14. They are, but to be built twenty inches from the surface of the ground and kept free from complaint.

15. The present sanitary condition is good excepting the privy vault system and the village drainage, which has not a proper outlet. Sewer pipe instead of

16. Typhoid fever, 1 case.

DR. H. L. S. HINKLY,

Health Officer.

- GREENWICH.
- Sixty dollars.
- Salary fifty dollars.
- 5. Six.
- Twelve.
- Twelve.
- Yes.
- Poorly ventilated.
- 10. No.
- Generally open.
- 11.
- 12. No.
- 14. Yes.
- 15. Sanitary condition good; I think it necessary to have privy vaults a certain distance from wells.
- 16. Typhoid fever, cases 6, deaths 1.

F. L. WARD,

Health Officer.

- 1. GROVER HILL.
- 800.
- 3. Fifty-two dollars and ninety-three cents.
- Thirteen dollars and ninety-five 4. cents
  - 5. Eight.
  - One hundred and five. 6.
  - One hundred.
  - 8. Yes.

- The school house was in good condition but privies were in bad condidition. We had them cleaned.
- 10. Yes. 11. Usua Usually by a box, which is emptied out of corporation when in need of cleaning.
- 12. Yes.
- 13. Fifty feet.
- Yes; by keeping clean.
- 15. I would consider the sanitary condition fair, but I think it necessary for more ditching. We have had several | under drains put in.
- 16. Diphtheria and membranous croup, cases 11, deaths 2.

G. H. HAYS. Health Officer.

- HANGING ROCK.
- 550.
- Two hundred and fifty dollars.
- Eighteen dollars.
- 5. Thirteen.
- Sixteen.
- 7. Eleven.
- 8. No.
- 10. No.
- 12. No.
- 14. Yes.
- 15. The general sanitary condition of our village is good at present.

16. Diphtheria and membranous croup, cases 7, deaths 1; typhoid fever, cases 10; deaths 3.

> JOSEPH KINKAID, Health Officer.

- HARROD.
- 500.
- Two.
- 6. One.
- 7. One.
- 8. No.
- 10. No. 12. No.
- 14. Yes.
- Good; better sewerage.
- 16. Diphtheria and membranous croup, cases, 3, deaths, 2; typhoid fever, 8 cases.

M. L. Johnston, Health Officer.

- 1. HARTWELL.
- 2, 2,500.
- 3. About seventeen dollars and five cents.
  - One hundred dollars.
  - 8. Yes.
  - Good. 9.
  - 10. Yes.

- 11. Stone or brick and must be water tight.
- 12. Yes.
- 13. Fifty feet.
- 14. No.
- Sanitary condition good. We are in need of a trunk sewer.
- 16. Diphtheria and membranous croup, cases, 3.

DR. LINCOLN PHILLIPS, Health Officer.

- 1. HAYESVILLE.
- 2. 450.
- 3. Thirty dollars.
- 4. Twenty dollars.
- 5. Four meetings.
- Twelve.
- 7. All were abated.
- They were.
- Found in good condition. 9.
- 10. They do not.
- 11. Built with drawers.
- 12. They do not. 14.
- They are.
  The condition of the village is good, and can't see where there could
- be improvement. 16. Typhoid fever, 9 cases; 1 death.

DILLMAN ANDRESS.

Health Officer.

- 1. HEBRON.
- 2. 450.
- 3. About ten dollars.
- Six dollars.
- 5. Four. We meet only when necessary.
  - 6. Eighteen.
    - Fifteen.
- They were last year but not this.
- Good, except ventilation, which was attended to.
- 10. No.
- 11. In any manner the owner sees fit.
- 12. No.
- 14. Yes.
- 15. On account of low location we have poor drainage especially for cellars, It would require a very expensive sewer system: the only remedy.
- 16. Diphtheria and membranous croup, 1 case, 1 death; scarlet fever, 4 cases; typhoid fever, 2 cases.

Dr. R. M. Bonar, Health Officer.

- HILLIARDS.
- 400.
- 3. Two dollars and fifteen cents.
- Two dollars and fifteen cents.
- Three.

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- Three.
- 7. Three.
- Yes.

9. Very good.

10. No; only in a general way.

- 11. They are vaults, walled with brick in most cases, but quite a number use boxes or troughs on the surface and a few ground surface only.
- 12. Yes.
- 13. Fifty feet.
- 14. No, except stock yards for shipping purposes.
- 15. Our general sanitary condition is good. However, we need a better sewerage system.

DR. N. P. DAVIDSON, Health Officer.

- 1. HOLGATE.
- 2. Eleven or twelve hundred.
- Two dollars.
- 4. Fifteen dollars and seventy-five cents.
  - Four.
  - 6. Seventy-three.
  - Seventy-three.
  - Yes.
- 9. In very good sanitary condition with the exception of two doors, which do not open out, but had them changed.
- 10. No.11. Holes in the ground with plank lining.

- 12. No, all wells are tubular.14. Yes.15. The sanitary condition in our village is good as you may see by the number of nuisances abated for a small village.

Dr. John Miller, Health Officer.

- 1. HOPEDALE.
- 450.
- Twenty-five dollars.
- No salary.
- 5. Seven.
- 6. Fiiteen.
- 7. Ten.
- 9. Ventilation, good; privys bad; well only water supply, bad, ordered analyzed, but school board paid no attention.
- 10. Yes.
- 11. Vault or box, water tight. We have dry earth or lime placed in boxes every two or three months.
- 12 Yes,
- 13. Fifty feet.
- 14 Yes.
- 15. Sanitary condition bad for reasons.

First, we have no health officer and only four members of board; council won't appoint a new board, hence no one has power to enforce any sanitary regulations. All I deem necessary is a full board of good and fearless men to enforce laws.

16. Diphtheria and membranous croup, cases 6; scarlet fever, cases, 4; typhoid fever, c ses 7; whooping cough, cases 10.

> DR. L. A. CRAWFORD, Health Officer.

- 1. HUNTSVILLE.
- 600.
- Nothing. З.
- 4. Nothing.
- 5. One.
- 6. Twenty-five or thirty.
- All that were found. 7.
- 8. Yes.
- 9. Good.
- 10. Yes.
- With a box on top of ground, so excrement can be carried away.
  - 12. Yes.
  - Tuirty feet. 13.
  - 14. Yes.
- 15 The condition is very good. Suggest no changes or improvements.
- 16. Diphtheria and membranous croup, cases, 1; deaths, 1; typhoid fever, cases, 2; whooping cough, cases, 6.

DR. J. S. MONTGOMEKY, Health Officer.

- Jefferson.
- 1,500.
- Twenty dollars (\$20.)
- Nothing.
- Fifteen or more. 5.
- 6. One dozen or more.
- 7. All.
- Yes.
- The conditions are as good as we can have without expenditure of more money than we can obtain.
- 10. No.
- 11. None. 12.
- No.
- 14. Yes.
- 15. The sanitary condition of village is excellent. No filth diseases at least.
- Very few for past year.
  16. Scarlet fever, cases, 5; typhoid fever, cases, 1.

DR. A. L. ARNER, Health Officer.

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- 1. JERUSALEM.
- 200.
- 3. Forty-eight dollars and ninety-nine cents.
  - Five. 5.
  - 6. None.
  - 8. No.
- 10. No.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. Reasonably good.
- Scarlet fever, 2 cases; measles, 1 case; whooping cough, 2 cases.

J. A. LATHAM,

Health Officer.

- 1. JOHNSTOWN.
- Fifty cents express.
- 4. Nothing.
- Six reorganized in June, 1896.
- Six.
- 7. Five.
- 8. Yes.
- 9. Very good.
- 10. We have rules regulating them.
- No new ones have been constructed since board reorganized. Old ones are of promiscuous patterns of construction.
- 12.
- Yes. Thirty feet. 13.
- There are some here. 14.
- Our town is on an elevation with good drainage and sewerage, but the gutters of the streets are not paved at all, causing a collection of water and mud.
- 16. Diphtheria and membranous croup, 1 case; typhoid fever, 2 cases, 1 death.

C. A. BURKE, M. D.,

Health Officer.

1. JUNCTION CITY.

- About seventy-five dollars.
- Thirty dollars.
- 5. Ten.
- 6. Eight.
- 7. Eight.
- Yes.
- The school building stands on high ground with no buildings near it, privies below it. Janitor under strict instructions. Condition good.
- 11. Some cemented and some with drawer box. Lime and dry earth are used until the box is full then removed at night by scavenger.
- Yes. 12.
- 13. Fifty feet.
- 14. Yes; under rigid restrictions.
- 15. We required village council to remove all garbage once a week, and grade

alleys and streets and keep same clean last summer. Our town is in good sanitary condition now and has been during the past year. No improvements deemed necessary now.

16. Diphtheria and membranous croup, 4 cases, î death; scarlet fever, 24 cases; typhoid fever, 12 cases; whooping cough, 3 cases.

Dr. J. A. Moody,

Health Officer.

- 1. KELLEY'S ISLAND.
  - 1,100.
- Seventeen dollars.
- Nothing.
- 5. Eight.
- One.
- One
- Not yet.
- Reported satisfactory.
- 10.
- 11. Dug in clay subsoil and drained into ditches and the lake.
- 12. No wells here.
- 14. Yes.
- 15. The sanitary condition has been very good during the last year. This board of health has been in existence since May, 1886.

16. Diphtheria and membranous croup, 1 case.

> Dr. J. J. KLEIN, Health Officer.

- 1. Kent.
- 4,000.
- 3. Nothing except for stationery and printing.

4. One hundred dollars per year and \$50 for milk and meat inspection.

Not over seven or eight.

- 6. Cannot tell. I inspect the entire town in spring and find a good many, privies, etc., but the people here promptly respect the requests and orders of the health officer.
- 7. It has not been necessary for the board to abate any nuisances, if that is what is meant.

8. Not the past year, but was the year before and found in good sanitary condition, so far as we were able to discover.

- 10. They pretend to, but a former health officer had a misconception of what constitutes a dry earth closet and supposed it meant that privies should be so constructed that the contents should fall upon the earth below instead of into a box or drawer, and many were thus constructed and are allowed to so remain.
  - 12. No.
- 14. Yes, by special permission of the board after March 1, 1897.
  - 15. Owing to the dry, sandy soil and

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splendid natural drainage this town seems to be in a good sanitary condition. What we need most is sewerage.

16. Diphtheria and membranous croup, 1 case; scarlet fever, 2 cases;

measles, 25 cases, 1 death.

As to typhoid fever there was one death last month and was reported to you. Doctors will not report such cases, claiming that they are not contagious. Each and every one of them have been furnished with a copy of the law by myself.

L. G. REED, Health Officer.

- 1. KIMBOLTON.
- 2. 300.
- Nothing.
- 4. Nothing.
- 5. None.
- 6. None.
- 7. None.
- 8. No.
- No. 10.
- Yes. 12.
- One hundred feet. 13.
- 14. Yes.15. Condition fairly good. Needed cleaning away of rubbish and stable manure more frequently, and enforcing of rules in regard to cleaning of privy
- 16. There were none reported, but as near as I can tell we had about as re-ported below: Typhoid fever, 4 cases, 1 death; whooping cough, 25 cases.

DR. S. M. MEHAFFEY,

Mayor.

- 1. LARUE.
- 1.000.
- Three dollars.
- Thirty dollars.
- 5. Seven.
- Thirteen. Thirteen.
- Yes. First class.
- 10. No.
- Ground vau t.
- No. Not necessary; drove wells. 12.
- Yes.
- The sanitary condition is good.
- 16. Diphtheria and membranous croup, cases 17, deaths, 1; typhoid fever, cases 4.

E. Anderson,

Health Officer.

- 1. LAURA.
- 2. 400.

- 3. Thirty-seven dollars and fifty cents.
  - Twenty dollars.
  - ō. Not any.
  - 6. Five. 7. Five.
  - 8. Yes.
  - 9. They were in good condition. 10. No.

  - 11. On top of the ground, no vaults.
  - 12. Yes.
  - 13. 50 feet.
  - 14. Yes.
  - 15. I think it is good.
- 16. Diphtheria and membranous croup, cases 1, deaths 1; scarlet fever, cases 2; typhoid fever, cases 2; whooping cough, cases 6.

W. S. OLVIN.

Health Officer.

- 1. LEETONIA.
- 3,500.
- Two hundred and fifty dollars.
- One hundred dollars.
- Five.
- В Seven.
- 7. Seven. 8.
- Yes. 9. Good condition.
- 10.
- 11. Usually surface vaults, with drawers or boxes, which are removed twice during the month.
  12. Yes, at least thirty-five feet.
- 13. At least thirty-five feet.
- 14. Only on permits granted by health
- 15. We consider our village in very good sauitary condition. We deem sewerage necessary, but have not the finance to see it through.
- 16. Diphtheria and membranous croup, cases 4, deaths 1; scarlet fever, cases 8; typhoid fever, cases, 19, deaths

DR. H. B. KURTZ.

Health Officer.

- 1. LISBON.
- 2. 3,000.
- The secretary is the only expense; five dollars per month, \$60.00.
  - Nothing. 4.
  - Twelve.
- 6. We have got rid of the slaughter houses after several years fight.
  - Three. 7.
  - No.
- 10. Yes, but not very closely.
- 11. Must be 6 feet deep lined up with plank.
- 12. Ves.
- 13. 50 feet.
- 14. Around the outskirts of town.

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16. Typhoid fever, 2 cases, 2 deaths; whooping cough, 1 case; 1 death.

> DAVID EELLS, Health Officer.

- 1. LOCKLAND.
- 3,000. 2.
- 3. Cannot state as we have no sanitary fund.
  - One hundred dollars. 4.
  - We meet once a month.
  - 6. Thirteen.
  - Thirteen.
  - They were.
  - 9. In good condition.
- 10. We do.
- 11. Vaults are built of stone, wooden casings, seven to nine feet deep.
- 12. No distance given.13. They are usually built in back yards.
- 14. No.
- The general sanitary condition of our village is good with the exception of a few cases of typhoid fever, scarlet fever and whooping cough.

16. Diphtheria and membranous croup, deaths 3; typhoid fever, deaths 2; whooping cough, deaths, 1.

> M. GUTH. Health Officer.

- 1. LOGAN.
- 3. Two dollars and seventy five cents.
- 4. One hundred dollars.
- 5. Twelve.
- Eighty-five.
- Eighty-five. 7.
- Yes.
- 9. Good.
- 10. No.
- Depth8 to 10 ft., walled and no floor.
- 12. Yes.
- 13. 50 ft.
- 14. At certain parts,
- 15. Sanitary condition good; canal nuisance abated and sanitary sewerage completed over town and water works.
- 16. Diphtheria and membranous croup, cases 2, deaths 1; scarlet fever, cases, 22, deaths 1.

A. K. Smith. Health Officer.

- 1. LOUDONVILLE.
- 2. 1,500.
- Seventy-five dollars.
- 4. Fifty dollars.

- 5. Twelve meetings, eight with quorum.
  - 6. Many.
  - 7. All.
  - 8. Yes.
- 9. Good. 10 It does not. Has no plan.
- 11. They are simply pits in the ground, which is here drift gravel generally loosely planked to keep from caving in. There is nothing to prevent contamination of wells, they being the sole water supply Wells vary in depth from twenty feet to eighty feet. But entire depth in gravel, sand, etc.

12. It does not. They are all distances, many very close, but few from sixty to one-hundred feet.

14. Yes, under restrictions. Must be kept clean. When offensive are removed.

15. Nuisances are promptly abated. The privy vault is the problem.

16. Scarlet fever, 1 case; typhoid fever, 3 cases, 1 death.

> WM. CONRAD, Health Officer.

- 1. LOVELAND.
- 2.000.
- 3. Twenty-five dollars.
- 4. Nothing.
- 5. Old board disbanded and four meetings 1 eld by present board.
  - 6. Ten.
  - 7. Six.
  - 9. No. 10. Yes.
- 11. Built of rough wall, brick and stone, ten feet below the crown surface of nearest street.
- 12. No.
- 14. Yes, if kept in a sanitary condition which they are not.
- 15. The present sanitary condition is bad, subject to surface drainage, prircipal part of which is in river bottom. We should have a sewer system.
- 16. Typhoid fever, 4 cases; whooping cough, 30.

J. D. WAKEFIELD, Health Officer.

- 1. LOWELL.
- About 400.
- 8. No.
- 9. They are said to be good.
- 10. It does not.
- 11. As they please.
- 12. No.
- 14. They are.
- 15. It is good. The regulation of loca-

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tion of privies, a curfew ordinance and abatement of saloons.

16. Typhoid fever, 2 cases, 1 death; Measles, 40 cases.

J. W. BRABHAM,

Mayor.

- 1. LYNCHBURG.
- There was nothing expended only for health office and clerk.
  - 4. Thirty-two dollars per year.
  - About five or six.
- One—that was the distillery.
  The Board did appoint a committee that avers all.
  - 8. It was at different times.
- 9. It was found in good condition. Don't think it could be better.
  - 10. They do.
- With a box under in place of vault. There are some old vaults yet but think they will be filled up.
  - 12. They do.
  - Not less than thirty feet. 13.
  - 14. They are if kept clean.
- 15. The village is in good sanitary condition. I think if the Board was an independent body and had the sanitary funds under its control it would be bet-
- 16. Diphtheria and membranous croup, cases 3; typhoid fever, cases 3; whooping cough, cases 12.

MARTIN V. NOLDER,

Health Officer.

- 1. MCARTHUR.
- 2. 1,000.
- 4. None as yet. Council of town refused payment.
  5. Seven.
  - 5.
  - 6. Several.
  - 7. All.
  - 8. Yes.
- In good condition generally. Heating and ventilation are in as good condition as present facilities will permit.
- 10. No.
- 11. Just simply drop on the ground; some boxes and very few vaults.
- No. 12
- Yes. 14.
- 15. Fairly good.
- Diphtheria and membranous croup, cases 2; scarlet fever, cases 2; typhoid fever, cases 7; measles, cases 1; whooping cough, cases 30, deaths 1.

DAVID LANTZ, Health Officer.

- McClure.
- 600.
- 3. Twelve dollars and fifty cents.
- 4. Three dollars.
- 5. Five.
- 6. Nine.
- 7. Nine.
- 8. No.
- 10. No.
- 12. No.
- 14. Yes, when properly kept.
- 15. The present sanitary condition is good, but may be improved by a better system of drainage, and proper disposition of garbage.
- 16. Scarlet fever, cases 10; typhoid fever, cases 2; whooping cough, cases 3.

DR. W. J. WEAVER.

Health Officer.

- 1. McComb.
- 2. 1,400.
- 3. Probably seventy-five dollars including salary of health officer and rent of dumping ground.
  - 4. \$40.00.
  - 5. About eight more since August.
  - 6. Four or five exclusive of privies. One-hundred and twelve including
- vaults. 8. No.
- 9. Building is kept in good general condition-janitor is also our sanitary policen an.
- 10. Theoretically, ves—practically, no.11. In all ways but the right one majority consist of a small building and a hole in the ground.
- 12. Yes.13. 50 feet.
- 14. Yes.
- 15. A fair average. Greatest need is some system of garbage disposal that will be general and effective.

  16. Scarlet fever, 2 cases; typhoid
- fever, 2 cases.

Dr. Jno. A. Thompson, Health Officer.

- 1. McConnellsville.
- 2. 1,800.
- 3. Seventy one dollars.
- Fifty dollars.
- 5. But few; the health officer has done all the work.
  - Twelve. 6.
  - Twelve.
- 8. About two years ago, and there has been no change since.
- 9. Bad. The building is heated by steam pipes and there is no automatic

ventilation. The air is renewed by opening windows and doors. The condition of the rooms depends entirely upon the judgment and vigilance of the teachers. It should be changed to secure automatic ventilation.

10. In part.

11. Sunk to the gravel, and bricked or bóarded up.

No regulations.

13. Our water supply is from public wells which are at street crossings.

14. No-not any hogs!
15. The present sanitary condition of our village is good. The improvement would be a sewerage system.

16. Scarlet fever, I case, 1 death; typhoid fever, 2 cases; measles, 3 cases.

DR. J. D. MARIS, Health Officer.

- 1. MAGNOLIA.
- 2. About four hundred.
- 3. Paid to health officer four dollars for serving notices.
  - 5. About one a month.
  - Four.
  - Two.
  - The school house just built new.
- 10. No.
- 11. Planks.
- 12. No.
- Yes. 14.
- The sanitary condition of the town has been good the past year.

W. M. JUDD. Health Officer.

- 1. MANCHESTER.
- 2,500.
- Twenty-five dollars.
- One hundred dollars.
- Four.
- Probably fifty, kept no account.
- Majority.
- R Yes.
- Excellent.
- 10. No.
- No. 12.
- 14. No. Very good. Being without the ad-
- vantage of complete sewerage and water works. I suppose our sanitary condition would compare favorably with any of
- 16. Diphtheria and membranous croup, 4 cases, 2 deaths.

Dr. R. A. STEPHENSON, Health Officer.

- MARYSVILLE.
- 2. 3,000.
- 3. Four hundred dollars.
- 4. Salary allowed one hundred dollars.
  - 5. Thirteen.
  - 6. Thirty-five.
  - 7. Thirty-five.
  - 8. No.
  - 10. Yes.
  - Above ground boxes. 11.
  - 12. Yes
  - 13. Fifty feet.
  - 14. No.
- As good as could be expected when 15. we have no proper sewerage system. Construction of sewerage system.
- 16. Diphtheria and membranous croup, 43 cases, 6 deaths; scarlet fever, 9 cases, 2 deaths; typhoid fever, 18 cases, 2 deaths.

DR. JNO. E. WOOD, Health Officer.

- 1. MASON.
- 700.
- 3. Twenty-two dollars.
- 4. Clerk ten and health officer twelve dollars
  - 5. Eight.
  - 6. Thirty.
  - Thirty. 7.
  - 8. Yes.
  - 9 Good.
- To some extent. 10. 11.
- Stone or brick.
- 12. Yes.
- 13. Sixty feet.
- 14. Yes few
- 15. In excellent condition.16. Diphtheria and membranous croup, 1 case; typhoid fever, 4 cases, 1 death; whooping cough, 2 cases.

DR. C. T. HALL, Health Officer.

- 1. MAUMEE.
- 1,700.
- Twenty-seven dollars.
- Haven't any use; village marshal.
- 5. Ten meetings.
- 6. Thirteen.
- 7. Twelve.
- Yes.
- 9. In good condition very even temperature, good ventilation and free of dirt.
- 10. Not altogether.
- Plank vaults set in the earth. 11.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.

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15. The village is at present in good sanitary condition, and general health rather too good for our doctors.

16. Measles, 2 cases.

D. H. PERRIN, Health Officer.

- 1. MECHANICSTOWN.
- 9 900
- 3. Twenty-five dollars (estimated).
- 4. One dollar and a half per day for days spent.
  - 5. Six.
  - 6. Several.
  - Several.
  - 8. No.
- 9. The school houses are thoroughly cleaned at the beginning of each school year.
- 10. Yes
- 11. On the surface without vaults. People instructed to cover the soil frequently with dry earth and air slacked lime and to keep clean.
- 12. No.
- 14. Yes, this a nuisance we would be glad to be rid of.
- 15. During Aug. of '96, we had several cases of typhoid fever; a general cleaning of alleys, privies, wells etc., was made under care of township board of health, and it did great good.
- 16. Typhoid fever, 5 cases, 1 death.

Dr. John M. Watt, Health Officer.

- 1. MELROSE.
- 2. 550.
- 3. Severa dollars and seventy-five cents.
  - 5. Fourteen meetings the last year.
  - 7. Four
  - 8. Yes, and found it all right.
  - 10. Yes.
  - 11. By plank vault 41 feet deep.
  - 12. Yes.
  - 13. Fifty feet.
  - 14. Yes.
- 15. It is very good condition now, and we expect to keep it so.

THOMAS J. MEYERS, Health Officer.

- 1. MENTOR.
- 2. 800.
- 2. 800. 3. None.
- 4. Ten dollars.
- 5. Two.
- 6. Four.
- 7. Four.

- 8. Yes and found all right.
- 9. Good.
- · 10. No.
- 11. Wood.
- 12. No.
- 14. Yes.
- 15. We have had a very healthy year, no epidemics, no fevers, only whooping cough, the present winter and those very mild and there not reported to health officers.

LESTER H. LUSE, Health Officer.

- 1. MIAMISBURG.
- Between 3.500 and 4.000.
- One hundred and fifty-two dollars and one cent.
  - 4. One hundred dollars.
  - 5. Seventeen.
  - 6. One hundred and forty-five.
  - 7. One hundred and forty-five.
  - 8. Yes
- Fairly good; might be some improvement but they are in fair condition.
- 10. Only to a degree.
- 11. Eight foot deep and walled up with stone or brick.
  - 12. Yes.13. Not less than fifty feet.
  - 14. Yes.
- 15. The sanitary condition is very good. Alleys should be graded and bouldered and some new sewerage.

16. Diphtheria and membranous croup, 3 cases, 1 death; typhoid fever, 3 cases, 2 deaths.

Dr. H. SCHOENFIELD, SR., Health Officer.

- 1. MILFORD.
- 2. 1,800.
- 3. Seventy-four dollars and eighty-three cents.
  - 4. Fifty dollars (to be paid.)
  - 5. Eighteen.
  - 6. Thirty-five.
  - 7. Thirty-five.
    - Yes.
- 9. In bad condition. Has since been examined. Practical ventilation, cistern condemned and closed, water closet rebuilt, school building painted throughout, a driven well, eighty feet, water tight from surface drainage.
- 10. Yes.
- 11. Wall laid with mortar and with cement.
- 12. Yes.
- 13. Not less than twenty-five feet.
- 14. No, not by ordinance.
- 15. Never was in better condition than

at present, needed a good water supplydrainage Also badly needed a separate fund to defray expense of Board. Council fight all bills.

 Scarlet fever, 15 cases; typhoid fever, I case, I death; measles, 3 cases.

FRANK C. CURRY. Health Officer.

- MILLERSBURG.
- 2 000
- Don't know.
- 4. Twenty-five dollars.
- 5. Five.
- 6. Ten.
- 7. All of them.
- 8. Yes.
- 9. Very good sanitary condition.
- 10. Yes,
- 11. Depth ten feet walled up with plank
- 12. Yes.
- 13. Sixty feet.
- 14. No.
- 15. Our sanitary condition is all right, and no changes or improvements necessary.
- 16. Scarlet fever, cases, 1; typhoid fever, cases, 1; measles, cases, deaths, 1 whooping cough, cases, 25.

D. L. OLMSTRAD, Health Officer.

- 1. MILLERSPORT.
- 250. 2.
- 3. Ten dollars.
- 4. One dollar and fifty cents.
- 5. No regular meetings.
- 6. One.
- 7. One.
- Yes; that is, our school house in Millersport.
  - 9. Good.
  - 10. No.
- 11. About a four foot pit dug in the ground.
- 12. Have only two wells, considered healthy; not examined.
- 14. Yes; they abound.
- 15. Ours is not an incorporated village; the sanitary condition is not always the best owing to hog pens and privies.
- 16. Diphtheria and membranous croup, 12; typhoid fever, cases, 10; deaths, 2; measles, 4.

M. M. COWN. Health Officer.

- 1. Mingo Junction.
- One hundred and seventeen dollars and sixty-eight cents.

- 4. Twenty-four dollars and ninetyfive cents.
  - 5. Twe!ve.
- 6. Twenty-five.
- 7. Twenty.
  - Yes.
- Fair condition, except two rooms in one building; ventilation was poor; corrected.
  - 10. Have taken no action as yet.
- 11. Simply an excavation, usually lined with plank.
- 12. Have taken no action.
- Only by permission of Board.
- 15. Fair, considering the amount of sewerage. A change in the construction of privy vaults is the most important subject to consider at present.
- 16. Diphtheria and membranous croup, cases, 7; deaths, 2; scarlet fever, cases, 3; typhoid fever, cases, 20; deaths, 1; measles, cases, 10; whooping cough, cases, 30.

F. S. BUCHANAN, Health Officer.

- MOUNT PLEASANT.
- 3. Thirty dollars.
- 4. Fifteen dollars.
- Six.
- 6. Twelve.
- 7. Twelve.
- Yes.
- We find that the condition of our 9. school houses is good.
- 10. No.
- 11 There are a very few vaults. Most of the privys are just built on the ground and cleaned out three or four times a year.
- No. 12.
- 14. Yes.
- 15. Our sanitary condition is very good. The only nuisance we have to contend with is hog pens.

16. Diphtheria and membranous croup, 9 cases; typhoid fever, 4 cases; measles, 1 case.

> GEORGE D. WALKER. Health Officer.

- Mr. Washington.
- 2. 800.
- 3. Seventy-five dollars.
- 4, Twenty-five dollars.
- 5. Monthly,
- 6. Ten.
- All. 7.
- 8. Yes.
- 9. Good.
- 10. Yes.

- 11. Vaults in ground walled with stone, brick or boards.
- 12. No.
- 14. No.
- The present sanitary condition of village is good.
- 16. Diphtheria and membranous croup, 2 cases; scarlet fever, 2 cases. \

DR. J. W. DODDS,

Health Officer.

- 1. Morrow.
- 1.000.
- None.
- None.
- Eight.
- Six.
- Six.
- 8. It was.
- In good condition.
- 10. To some extent.
- 11. They are from eight to fifteen feet deep, walled with stone.
- 12. It does.
- 13. Fifty feet or more.
- They are, but kept clean. 14.
- San tary condition is good.
- 16. Scarlet fever, 9 cases.

DR. B. C. STILES, Health Officer.

- 1. MURRAY CITY.
- 1.025.
- In the neighborhood of one hundred dollars.
  - Eighteen dollars.
  - Six.
  - All in corporation.
  - All the most important ones.
  - Yes.
- In rather a poor condition. We had school-house scrubbed, windows washed, fence built and new privies constructed.
- They make special suggestions. With six feet vault with boarded
- up sides and filled around privy.
- 12. Yes.
- 13. One hundred feet.
- 14. Yes.
- 15. It is in a fair condition as we have had no contagious diseases here this year. There is some draining and filling that would help sanitary condition.
  16. Tyhoid fever, 5 cases, 1 death;
- whooping cough, 25 cases.

Dr. T. J. DILLINGER, Health Officer

- 1. NAPOLEON.
- 2,900.
- Probably five dollars, not including health officer.

- 4. From May 1st to Nov. 1st, twelve dollars per month after that the council kick at paying any thing or if so, want an itemized bill.
- Three stated—but left at discretion of health officer to call a meeting if necessary.
  - Two hundred and thirty-four.
  - Two hundred and thirty-four.
  - They were.
- 9. In good condition, as they are always kept so.
- They do.
- With stone or hard brick, with 11. walls and bottom not less than four inches thick, laid with cement, mortar and cement plastered inside and out.
- 12. They do.
- Fifty feet.
- 13. 14. Not during heated season, and at any time if they become a nuisance, they are removed.
- 15. The present sanitary condition of this village is good. The present sewerage is emptied into the canal, but in the spring a sewer will be enlarged, so the discharge will empty into the Maumee river this village.
- 16. Diphtheria and membranous croup, 3 cases, 1 death.

D. H. HANCOCK. Health Officer.

- 1. NAVARRE.
- 1,100.
- 3.
- Seventy-five dollars. Twenty-five dollars. 4.
- 5. Twelve dollars mouthly,
- 6. Several.
- 7. A11.
- 8. Yes, all in good condition.
- 9. Good.
- 10. Yes.
- 11. Brick, stone and plank.
- 12. Yes, fifty teet unless water-tight.
- 14. Yes.
- 15. Good. No visible improvements.
- 16. Diphtheria and membranous croup, 1 case, 1 death; scarlet fever, 1 case.

John Bailey, Health Officer.

1. NEVADA.

- 3. Twenty-five dollars.
- 4. Twenty-five dollars.
- 6. Five.
- 7. Five.
- 8. Yes.
- First-class in all respects.

- i0. No.
- No. 12.
- 14. Yes.
- 15. Condition is fine. Nearly all the resident property owners have driven wells and pure water. What we need is to have property owners furnish renters driven wells instead of surface wells.

16. Diphtheria and membranous croup, 2 cases; scarlet fever, 5 cases; typhoid fever, 9 cases; measles, 22 cases.

DR. S. S. BARRETT, Health Officer.

- 1. NEW BREMEN.
- 1,500.
- 3. Nineteen dollars.
- Fifteen dollars.
- 5. Four regular and five special.
- Thirteen. 6.
- 7. Twelve.
- Yes. 8.
- 9. Good. We are very strict as to the sanitary condition of sc'100l, the \$19.00 expended were for disinfectants for school building.
- 10. Yes.
- 11. Of two-inch hard wood planks with sides and bottom well puddled.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. Condition good. Wou'd not know of any change.
- 16. Membranous croup, 1 case, 1 death; typhoid fever, 1 case.

DR. M. S. EKERMEYER, Health Officer.

- 1. New Carlisle.
- 1,000.
- 3. Ten dollars.
- 4. Ten dollars.
- 5. Monthly.
- Four.
- 7. Four.
- 8. Yes.
- 9. Good.
- 10. Yes.
- Walled up. 11. 12. Yes.
- 13.
- Fifty feet.
- 14. Yes.
- 15. Good. No change necessary.
- Scarlet fever, 15 cases; whooping cough, 30 cases, 2 deaths.

DR. BEN. DAVIS. Health Officer.

- 1. NEW CONCORD.
- 2. 800.
- 3. Eleven dollars, and twenty-five cents.
- 4. Ten dollars.
- Eleven meetings. 5.
- H. None.
- 8. Yes.
- 9. Good.
- 10. No.
- Tight boxes. 11.
- 12, It does.
- 13. Fifty feet.
- 14. Yes.
- 15. Good. There could be some change in our creamery drainage, especially through the summer season,

16. Diphtheria and membranous croup, 1 case, I death; scarlet fever, 4 cases; whooping cough, 50 cases.

> W. N. SMITH, Health Officer.

- 1. NEW LONDON.
- 1,500.
- One hundred dollars.
- Sixty dollars.
- 5. Twelve.
- One hundred and seventy-five.
- 7. One hundred and seventy-five.
- 8. Yes.
- 9. In good condition.
- 10. No.
- Top of ground with door at the 11. back.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes. By four members signing
- .5. In first class sanitary condition.
- 16. Diphtheria and membranous croup 1 case, 1 death.

A. M. TURNER. Health Officer.

- 1. NEW MADISON.
- 2. 500.
- Twelve dollars.
- Ten dollars. 4.
- 5. Four.
- 8. Yes.
- 9. Good.
- 10. Yes.
- 11. Dry earth.
- 12. Yes.
- 13. Not less than fifty feet.
- 14. Yes.
- 15. Good.
- Typhoid fever, 1 case.

J. F. S. HAGEMAN, Health Officer.

- NEW MATAMORAS.
- 800.
- Four-hundred dollars.
- Sixteen.
- Don't know.
- 7. 60.
- Yes.
- 9. Good.
- 10. Yes.
- 11. Wood and brick, deep.
- 12 None closer than 100 ft.
- 14.
- 15. Our village is in a very good sanitary condition, except the river front, where filth has been thrown for years.
- 16. Diphtheria and membranous croup, 134 cases, 8 deaths; typhoid fever, 5 c ses; measles, 14 cases.

THEODORE HEDDLESTON.

Health Officer.

- 1. NEW PARIS.
- 1,000.
- 3. Nothing.
- Five dollars.
- 5. Ten.
- Three hog pens.
- By removal of hogs to clean quarters.
  - 8. No.
- 10. No.
- Uncemented vaults placed in the 11. earth.
- No. 12.
- 14. Yes.
- 15. Taking into consideration our snrroundings, the general sanitary condition is good.
- 16. Typhoid fever, 3 cases; whooping cough, 30 cases.

Dr. Louis Dunn.

Health Officer.

- 1. NEW RICHMOND.
- About 2,300.
- 3. About one hundred and twentythree dollars.
  - Fifty dollars. 4.
  - About nine. 5.
  - б. Five. Five.
  - 7.
  - 8. No.
- No examination made, reported by Ω school board as good.
- Yes. 10.
- From eight to twelve feet deep and 11. boxed up with solid oak two inch thick.
  - No; we have no well. 12.
  - 13. None given.
- Yes, and regarded as a nuisance. 14.
- 15. Our village is in good sanitary condition. Very little sickness. No epidemic the past year.

16. Scarlet fever, 2 cases fever, 2 cases; measles, 2 cases.

DR. T. J. MULLEN,

Health Officer.

- 1. NEW STRAITSVILLE.
- 2,800.
- 3. Eight dollars and fifty cents.
- Seventy-two dollars.
- 5. Seven.
- 6. We investigated a great many nuisances.
  - 7. All were abated.
  - Yes.
- The school houses were all right but the privy vaults bad, and we had them all emptied and cleaned up very satisfactory.
- 10. No.
  11. Holes six feet deep. Some boarded inside and some are not.
  - 12. Fifty feet, if possible.
  - Yes. 14.
- 15. At this time of the year the sanitary condition is good but in the hot weather it is poor. Alleys bad, caused by stable manure and pig pens and cows standing in the alleys.

16. Scarlet fever, cases, 24; deaths, 2; typhoid fever, cases, 3; whooping cough,

cases, 3; deaths, 1.

M. TRUEX. Health Officer.

- NEWTON FALLS.
- 2. 800.
- 5. Six.
- 6. Three.
- Three.
- 8. They were.
- 9. Good.
- 10. They do.
- 11. With a water-tight box or a vault made of brick and cement, and must be cleaned once a year and oftener if the Board deems it necessary.
- They do. 12.
- 13. Fifty feet.
- 14. They are.
- 15. Fairly good. I think it would be an improvement to prohibit the raising of hogs and chickens.

16. Scarlet fever, cases, 9; deaths, 1; typhoid fever, cases, 4; measles, cases 11; deaths, J.

> A. C. LAWTON, Health Officer.

- 1. NEW VIENNA.
- Thirty six dollars and eighty cents.
- Twenty-five dollars.

- 5. Five regular and numerous calls for inspection.
  - 6. All privies, alleys and ditches. Not any by legal process.
  - Yes.
  - Excellent. 9.
- 10. No vaults allowed.
- 11. On the surface and soil carted away or buried under two feet of earth.
- 12. No. 14. Yes; in out lots or where not offensive to neighbors.
- 15. Present sanitary condition good. The Board has recommen led sewering of open ditches.

16. Diphtheria and membranous croup, cases, 17; deaths, 2.

> GEO. R. CONARD, Health Officer.

- 1. NEW WASHINGTON.
- 2. 900.
- 5. None
- 6. One.
- 7. One. 14. Yes.
- Good. 15.
- Typhoid fever, 2 cases, 1 death. 16.

GEO. B. WOLF, Health Officer.

- 1. NORTH AMHERST.
- 2.000.
- About thirty-five dollars.
- Fifty dollars.
- 5. Six or eight.
- Twelve.
- 7. Twelve.
- 8. Yes.
- Good sanitary condition. 9.
- 10. No.
- 12. No.
- 14. Yes.
- Sanitary condition of town is good. 15.
- 16. Diphtheria and membranous croup, 2 cases, 1 death; scarlet fever, 3 cases; typhoid fever, 3 cases; whooping cough, 15 cases.

DR. W. H. CORNWELL, Health Officer.

- North Lewisburg.
- 1,000.
- Nine dollars and eighty cents.
- Six dollars and seventy-five cents.
- Five. 5. Three.
- 7. Three.
- 8. No.
- 10. Yes.
- 11. Sealed with concrete, or in some way made water-tight.

- Yes.
- 13. Fifty feet.
- Yes.
- 15. Sanitary condition good, except water supply, which is from wells. Water works.
  - 16. Scarlet fever, 1 case.

A. SPAIN. Health Officer.

- OAK HARBOR.
- 1.800.
- Seventy-five dollars. 3.
- Fifty dollars. 4.
- About twenty.
- 6. Thirty-two.
- Same number as investigated. 7.
- 8.
- They are in good sanitary condi-9. tion.
- 10. Yes.
- 11. Box and cemented vaults.
- 12. No.
- Hog pens are restricted in certain limits and d stricts in the thickly populated parts of the town.
- 15. The general sanitary condition of our town is good.
  - 16. Measles, 2 cases.

F. S. HELLER. Health Officer.

- OAKWOOD.
- 400.
- None. No. 8.
- 10. Yes.
- They are to be water-tight, but 11. there has been none since that ordinance took effect.
  - 12. No.
  - 14. Yes.
- The sanitary condition of our vil-15. lage is good.

W. E. Osborn, Hea'th Officer.

- 1. OHIO CITY.
- 1,000.
- Twenty-five dollars.
- Fifteen dollars. 4.
- 5. Eight.
- Four, в.
- 7. All.
- 8. Yes.
- 9. Good.
- 14. Yes.
- 15. Good.

JAMES MCLEAN, Health Officer.

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- 1. OLMSTED FALLS.
- 2. 500.
- Twenty-five dollars.
- Twenty-five dollars.
- None reported.
- Yes.
- Good sanitary condition.
- 10. No.
- 12. No.
- 14. Yes.
- The condition of the village is 15. good. Have not had a case of any contagious disease in over a year.

C. H. BARNUM,

Health Officer.

- 1. ORRVILLE.
- 2,000.
- Board handles no money.
- Fifty dollars.
- Since May 25, four regular and one special meetings.
  - 6. Thirty-one.
  - 7. Thirty-one.
  - Yes.
  - Good sanitary condition.
- 10. Never has been enforced.
- Cemented vaults and boxes. 11.
- 12. No.
- 14. Yes.
- 15. Present sanitary condition is as good as it can be under circumstances. Little or no sewerage. Advise complete sewerage, removal of hog peus, and privy vaults properly constructed. 16. Typhoid fever, cases 3.

DR. A. A. BROOKS, Health Officer.

- 1. OTTAWA.
- Seventy-five dollars.
- 6. One hundred notices to abate were issued.
  - 7. All of any importance.
  - 8.
  - 9. They are in good condition.
- Of brick and cement, or tight box, which is removable.
- 12. Yes.
- 13. Fifty feet if not cemented.

14. Yes, where complaint is not made against them, but are abated when com-

plained of.

15. The general sanitary condition is good, except the sewerage, which is bad. Many privies are tapped into sewers with open catch basins. Also several having privy connection empty into the old bed of river, now almost dry for a great part of year and sewage lays from one rise of river to the next exposed to the

16. Diphtheria and membranous croup, cases 3, deaths 1; scarlet fever, cases 6; typhoid, cases 27; measles, cases 2.

FRANK LIGHT,

Health Officer.

- Pataskala.
- 800.
- 3. Sixty dollars.
- Thirty-five dollars.
  - Twelve.
- 6. Ten.
- 7. Ten.
- 8. Yes.
- 9. Bad.
- 10. Yes.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. The conditions at the present time seem to be good. No sickness of any kind.
- 16. Diphtheria and membranous croup, 4 cases, 3 deaths; scarlet fever, 19 cases, 2 deaths; typhoid fever, 1 case.

FRANK McConaughey,

Health Officer.

- 1. PAULDING.
- 3,500.
- 3, Nine dollars and forty cents.
- Nothing. 5. Five.
- 6. Ten.
- Ten.
- Yes.
- In good condition, except the cold air supply rooms. Are fixed now.
- 10. Yes.
- 11. With drawers to place under seat. No sink holes are allowed in corporation.
- 12.
- Two hundred feet.
- 13.
- 14. 15. I consider the town in good sani-

tary condition. 16. Diphtheria and membranous croup,

14 cases, 1 death; typhoid fever, 5 cases, 2 deaths; measles, 2 cases; whooping cough, 10 cases.

DR. L. P. FAST.

Health Officer.

- PEMBERVILLE.
- 1,700.
- One hundred and fifty-three dollars and forty cents.
- 4. One hundred and five notices. served @ 20 cts., \$21.00.
  - 5. Eight.

- One hundred and five.
- 7. Ninety-three.
- No.
- Could be better. Water closet should be cleaned every year, which is
- 10. No; without a good Board of Health, it can't be done,
- 11. In every way. I tried hard for cemented vaults; but without a vigorous mayor and Board of Health it can't be done.
  - 12.
- 13. Room enough to get through.
- 14. Yes, but under strict control.
- 15. Sanitary condition under circumstances existing is good enough, but creamery and privies too close to wells, are liable to promote typhoid fever or other discases.
- Diphtheria and membranous croup, 26 cases, 6 deaths; scarlet fever, 2 cases; typhoid fever, 10 cases; measles, 12 cases; whooping cough, 9 cases.

JOHN SEILER. Health Officer.

- 1. PIKETON.
- 1,000.
- Fifty dollars.
- Twenty-five dollars.
- 5. Six.
- Fair.
- 11. There have been but few of recent construction. The majority of old ones are unwalled or on top of ground.
  - 12. Yes.
  - 13. Fifty feet.
  - Yes. 14.
- 15. The sanitary condition of town is very good. It has been very healthful for the last few years. Privies and hog-pens are the sources of most annoyance. Hence, the changes which we think most necessary would be the construction of more vanits and removal of hog-pens from corporation. The greatest bar to construction of vaults is the financial condition of a great many of the people.

  16. Diphtheria and membranous croup, 3 cases, 1 death; measles, 10 cases.
  - 1. PIONEER.
  - 800.
  - Nothing.
  - Nothing.
  - Twelve.
  - Seven.
  - Six.
  - They were. 8.
  - 9. Good.
  - They do not. 10.
  - By digging pits and cleaning out

- once a year, and when necessary twice a year.
  - 12. They do not.
    - They are to some extent.
- 15. Fair. A more strict enforcement of the sanitary laws.

W. H. DURBIN. Health Officer.

- PLEASANT HILL.
- 700.
- 3. Fifty dollars.
- 4. Fifteen dollars.
- 5. Eight.
- All. 7.
- Yes.
- 9. In good condition. 10. Yes.
- Cement vault or on the surface.
- 12. Yes; fifty feet,
- 14. Yes; if properly cared for.
- 15. Good; except more care should be taken with wells.
- 16. Scarlet fever, 7 cases; typhoid fever, 6 cases.

A. J. BAUSMAN, Health Officer.

- 1. PLEASANT RIDGE.
  - 1,250.
- 3. About ninety dollars.
- Thirty-five dollars.
- 5. Meet once a month. Quorum present five times.
  - 6. One.
  - 7. One.
  - 8. Yes.
- 9. In good condition.
- 10. Yes.11. Our soil is a clay that holds waterbuilt out of stone or brick and they are built out of stone or brick not less than five feet in depth.
- 12. Yes. 13. Fifty feet. 14. Yes, on certain conditions as to cleanliness.
- 15. The sanitary condition is fair. We have not as yet a sewerage system nor a practical way of disposal of garbage. We hope for both innear future.
- 16. Scarlet fever, 5 cases; typhoid fever, 1 case.

C. W. ACOMB, Health Officer.

- 1. PLEASANTVILLE.
- 2.
- About fifteen dollars. 3.
- 4. Ten dollars.
- Five.
- 6. Five.



Five.

No.

10. No.

11. At the discretion of owner.

12 Yes.

13.

Fity feet. Yes, if kept in a sanitary condi-14. tion.

15. Our present sanitary condition is fair. Sewerage necessary. Keep alleys clean. Don't permit hog pens unless kept clean.

16. Scarlet fever, 2 cases.

WILLIAM E. BAKER, M. D., Health Officer.

- PORTAGE.
- 2. 600.
- 3. About sixty dollars.
- Twenty-five dollars.
- 5. Average one a month. Three.
- Two.
- Our school house is new, just completed for the winter term of school.
- 10. To some extent, not altogether. 11. Our plan is to use boxes or draw-
- ers.
  - 12. So far we have not done so. Yes, during fall and winter. 14.
- Our great need is a system of sewerage, as our town is situated on low, flat land; our sanitary condition is bad, so

many oil wells in our town.

16. Typhoid fever, 4 cases; whooping cough, 8 cases.

> W. C. PHILO, Health Officer.

- 1. PROSPECT.
- 100.
- 3. About eighty dollars.
- Fifty dollars.
- 5. Six or seven.
- 6. 7. Forty.
- All.
- 8. Yes.
- 9. Fairly good.
- 10. Yes.
- Of brick cement. No.
- 11. 12.
- Not from April 1-t to October 1st. 14.

The sanitary condition is good for no water works system or sewers, there being good fall into Scioto river by tile.

6. Diphtheria and membranous croup, 4 cases, 3 deaths; typhoid fever I case.

> C. M. C. THOMAS, D. D. S., Health Othcer.

1. PUT-IN BAY.

- 263.
- 3. None.
- 4. None.
- 5. Four.
- 6. Two. None.
- 7. 8. Yes.
- 9. No school house in the corporation.
- 10. Yes.
- 11. Since the Board of Health is in force there has been no new privies erected in the corporation. They are now generally of wood. 12. They do.

  - 13. Fifty feet.
- 14. They are.
  15. Would like to have the sewerage of the Beebe house changed. It empties into the lake, not over two hundred feet from the place where the water supply is pumped to the hotel; also the hog pens in the corporate limits ought to be stopped and the killing of beef.

HUGO STEIERT,

Health Officer.

- 1. RAVENNA.
- 500.
- About four hundred dollars. Two dollars a day for actual work.
- Twelve, promptly attended.
- It is difficult to tell.
- 7. All but three that are pending.
  - They were.
- 9. The basements were cleaned; the upper rooms were thoroughly washed and cleaned at each vacation.
  - 10. Partially.
- 11. Dry earth boxes. There are some vaults. There are quite a number of closets with cesspools.
- 12. They do not, there are very few wells in town.
- 14. They are not.
  15. The condition is excellent, while our council pays all our bills. I think should be under the the sanitary fund should be under the control of the board of health.
- 16. Diphtheria and membranous croup, 5 cases, 2 deaths; scarlet fever, 24 cases; typhoid fever, 6 cases, 2 deaths; measles, 13 cases; whooping cough, 40 cases.

H. S. Johnson, Health Officer.

- 1. READING.
- 2. 4,000.
- 3. Nothing.
- One hundred dollars per year.
- Nine.

- Sixteen.
- 7. Sixteen.
- 8. Yes.
- 9. Good. 10. Yes.
- 11. Six feet in depth and walled with stone.
  - 12. No.
  - 13. As far as possible.
  - 14. Yes.
- 15. Our sanitary condition is good, as our low death rate and entire absence of contagious diseases, at present, will
- 16. Diphtheria and membranous croup, 30 cases, 7 deaths; scarlet fever, 1 case; typhoid fever, 1 case.

GEORGE MAGES.

Health Officer.

- 1. REPUBLIC.
- 2. 600.
- Twenty dollars.
- 5. Seven.
- Fifteen. 6.
- 7. Fifteen.
- 8. Yes.
- 9. In good sanitary condition.
- 10. No.
- The majority are constructed without vaults and some with wooden slide boxes.
  - 12. No.
  - Yes. 14.
- 14. Yes.15. The present sanitary condition is very good.

H. V. BISHOP, Health Officer.

- 1. REYNOLDSBURG.
- About 400.
- None.
- None. 5. None.
- None.
- None.
- No, except what the school board has done of which I am a member.
- 9. We try to keep it in fair condition. There is a stagnant pond close to the school grounds owned by two private parties and a cemetery association, a part of which is in the corporation a part out and we are unable to get rid of it. Every year (except the past season) we have had a number of cases of typhoid fever in that vicinity and along the street near it, what must we do to get rid of it? The fevers occur in dry seasons.
  - 10. No.
- Just as the owner desires. 11.
- 12. No.
- Yes, and slaughter houses, too.

15. You can see what the condition is by the description I have given. In the first place we need a well organized board and to get rid of the above mentioned pond if there is a law to that effect; our board was organized a few years ago and did well the first year, since that it has not done anything.

16. Diphtheria and membranous croup 1 case.

E. G. TAYLOR, M. D.

- 1. RICHMOND. P. O., Grand River.
- 3. One hundred and thirty dollars.
- 4, Ninety dollars.
- 5. None.
- 6. Ten.
- 7. Three.
- School houses belong to township. 8.
- 10.
- 11. Either tight box or cement vault. 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- We consider sanitary condition of 15. our village very good. The buildings are scattered and village covers large amount of territory.

J. H. Averill. Health Officer.

- 1. RIDGEWAY.
- Sixteen dollars and fifty cents.
- 4. Ten dollars per annum.
- 5. Three.
- One. 6.
- 7. One.
- 8. They were.
- 9. Good.
- 10. No necessity for same.
- 11. With vaults. All are put at alley at rear of lot; lots 165 feet deep.
- 12. Only as above.
- 14. Yes.
- 14. Yes. 15. It is good. I would not know how to improve it.
- 16. Diphtheria and membranous croup, cases, 1, deaths, 1; scarlet fever, 3.

DR. E. B. CROW,

Health Officer.

- 1. RISING SUN.
- One hundred and twenty dollars.
- 5. Ten. 6.
- Five.
- Five. 8. Yes.
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- 9. Bad; but they were at once repaired.
- 10. Yes.11. With oak tubs which are hauled out and emptied at proper time.
- 12. No.
- Yes. 14.
- The present sanitary condition is 15. good, except a large pile of old sawdust that is in the thickly settled portion of the village.
- 16. Typhoid fever, cases, 1, deaths, 1; whooping cough, cases, 4.

J. F. PETESE, Health Officer.

- 1. ROCKY RIDGE.
- 2. 550.
- None. 4.
- Four.
- Thirteen.
- Thirteen. Yes.
- Good except privy.
- 12 Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. The sanitary condition of the village is good except slight cases of scarlet fever and whooping cough, but nothing serious.

WM. SCHLEGEL, Health Officer.

- ROGERS.
- 500.
- Twelve.
- Six. 6
- Six.
- Yes. Were improved and 9. Not good. are now in good condition.
- 10. Yes.
- 11. As recommended by the Ohio State Board of Health.
- 12. Yes.
- Fifty feet. 13.
- Yes.
- 15. The sanitary condition is fairly good. The town is small and not so closely built to require rigid rules.

16. Diphtheria and membranous croup, l case; scarlet fever, 1 case; whooping cough, 35 cases.

C. T. MCARTON, Health Officer.

- 1. SABINA
- 1.500. dollars and eighteen 3. Fifty-four cents.

- Fifty dollars.
- Seventeen.
- Two hundred and fifty-seven orders to abate.
  - 7. All.
- No. 8.
- 10. Yes.
- 11. Either tight box or cemented vault.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes. 15. The sanitary condition is fair. We have some ponds that become foul when the water is low in the creek.

them drained. 16. Scarlet fever, 2 cases; typhoid fever, 2 cases, 1 death.

> J. L. Johnson, Health Officer.

- 1. SALESVILLE.
- 400
- Twenty-five dollars and five cents. 3.
- Twenty-one dollars. 4.
- 5. Nine.
- Four.
- 7. Three.
- 8. No.
- 11. By sinks.
- 12. No.
- 14. Yes.
- In good health. 15.
- 16. Diphtheria and membranous croup, 1 case.

W. D. BEEKS, Health Officer.

- 1. SALINEVILLE.
- 2. 2,400.
- 3. Two hundred and four dollars and thirty-four cents.
  - Sixty-five dollars.
  - Twenty one.
  - 6. Ten.
  - 7. A11.
  - Yes.
- In good condition. The new school building containing eight rooms with hot air privies on the Peck-Williamson Co., Cincinnati, system, giving general satisfaction.
- 10. Yes.
- 11. Hole in the ground from five to ten feet, walled with brick or stone.
- Yes.
- 13. From fifty to seventy feet according to circumstances.
- 14. Only by special permit from the board of Health.
- 15. The present condition is reasonably good. There might be some im-

provement as to laying more pipe in place of open sewers but the road fund ran out last year.

16. Scarlet fever, 20 cases, 7 deaths; typhoid fever, 1 case; whooping cough, 10 cases.

> JAMES CARTER, Health Officer.

- 1. SCOTT.
- 800.
- Five dollars.
- Nothing.
- 5. Six.
- Forty-seven.
- 7. Forty-seven.
- Yes.
- 9. Good.
- 10. Yes.
- 11. By box vault.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. We deem it necessary to have hogpens removed out of main part of town and some way of draining privy vaults.
- 16. Diphtheria and membranous croup, 2 cases; scarlet fever, 1 case; typhoid fever, 3 cases; whooping cough, 25 cases.

F. W. BEAMER, Health Officer.

- 1. SHARON.
- 1,200.
- Nothing. 3
- 4. One dollar.
- 8. No.
- 10. No.
- 14. We are not incorporated.
- 15. Our village is in very good condition.
- 16. Diphtheria and membranous croup, 1 case; typhoid fever, 2 cases; measles, I case.

JOHN A. REED, Health Officer.

- SHAWNEE.
- 2. **4.0**00.
- 4. Salary seventy-five dollars per year.
- Since our election in July, two meetings.
  - 6. Nineteen.
  - 7. Nineteen.
  - Ves.
- Considering the mode of construction schoolhouses were found in fair condition.

- 10. None built since our election, There is an ordinance regulating them.
- 11. Brick with cement lining.
- 14. Yes.
- 15. Fair. This report includes from July to latter part of February, 1897 or since our election.
- 16. Diphtheria and membranous croup, 2 cases, 2 deaths; scarlet fever, 3 cases; typhoid fever, 15 cases, 1 death; measles, l case.

DR. JOHN I. DAVIS, Health Officer.

- 1. SHELBY.
- 4.000.
- No means of determining as the sanitary fund is used for other purposes also.
  - 4. Ninety dollars per annum.
  - 5. About fifteen.
  - 6. One hundred and eighty-six.
  - All of them.
- 8. No. 10.
- Yes.
- 11. Water-tight drawer or vault. 12. Yes.
- 13. Fifty feet.
- 14. Yes, when one hundred feet from
- any occupied dwelling or business room. 15. All old privies should be made water-tight. Sewerage of the principal
- A good garbage disposal. 16. Diphtheria and membranous croup, 20 cases, 7 deaths; typhoid fever, 54 cases, 6 deaths; measels, 1 case.

Dr. W. S. Anderson, Health Officer.

- 1. SHERWOOD.
- 2. 600.
- I hree.
- 8. Not specially.
- 9. School rooms three in number, on hill; good drainage, and good ventilation
- 10. Yes. With wood boxing sunk in the earth about three feet deep,
- 12. No, all wells here are driven, 70 to 80 feet deep with iron pipe; no shallow wells.
- 14. Yes, but must be kept clean.
  15. Sanitary conditions good. People in general interest themselves in keeping the surroundings clean.
- 16. Typhoid fever, 1 case; measles, 1 case; whooping cough, 8 or 10 cases.

DR. E. J. POTTER,

Health Officer.

- 1. SHREVE.
- 2. 1,100.



- Twenty-five dollars per annum.
- Four.
- Innumerable.

- 7. All which required it.9. Our school house is thoroughly cleaned once each year and whitewashed and is always in the best condition.
- 10. Yes.
- 11. Water tight, either of brick or board sealed, according to state regulations
  - 12.
  - 13. According to state laws.
  - Only certain months in year.
- 15. Our village is in good sanitary condition for the present and has been, taking it from the few deaths, and not one from contagion for the past year.

16. Scarlet fever, 2 cases; measles,

7 cases.

J. D. BARCUS, Health Officer.

- 1. SMITHVILLE.
- 3. Nothing.
- 4. No appropriation for officer.
- 5. Five.
- 6. Three.
- 7. All but one.
- 8. Yes.
- 9. Very good.
- 10. No.
- 11. Old style.
- 12. Yes.
- 13. Fifty feet.
- Yes. 14.
- Very good. Sewers. Fire ward 15. cisterns.

A. K. SCHAAF, Health Officer.

- SOMERSVILLE. 1.
- 375.
- 3. None.
- 4. None.
- One each month. 5.
- Several.
- 7. All.
- 8. Yes.
- The house was in a good condition. 9.
- 10. Yes.
- With stone or brick and laid up 11. with mortar.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. Our village is in a good condition.
- and membranous 16. Diphtheria croup, cases 5, deaths 3; typhoid fever, cases 2.

ADAM KAPP. Health Officer.

- 1. South Bloomfield.
- 3. Thirty dollars and fifty cents.
- Three dollars, expenses incurred, and one dollar and fifty cents professional visit.
- 5. About fourteen, nearly every month regular, and three or four called meetings.
  - õ. Two or three.
  - 7. Two or three.
  - No.
- 9. Having been on the premises repeatedly I am fairly convinced that the sanitary condition of building and outbuilding and grounds are good.
- 10. Yes.
- 11. Dug through three and four feet of brown loam and course gravel into fine sand two or three feet deep. The sides boarded up and bottom of box left out.
  - 12. Yes, fifty feet.
  - 13. Fifty feet.
  - 14. Yes.
- Our soil, subsoil and drainage are 15. about as near perfect as they occur in nature. The town is cursed with a pack of ownerless dogs. Occasionally some one is impressed with the absolute necessity of the death of one or more of Then there is an exhibition the pests. of bad blood and some one is compelled to remove the corpse. Our whole trouble consists in getting good men in the council and on board of health.
- 16. Scarlet fever, case 1.

CHAS. E. BLACKER, M. D.

Health Officer.

- 1. SPRINGBORO.
- 2. 500.
- 3. Seventeen dollars and seventy-five cents.
  - 4. Seven dollars.
  - 5
  - Seven. Thirteen. 6.
  - 7. Thirteen.
    - Yes.
- The ventilation is good as all the air that is stirring can get in.
- 10 No.
- 11. On the ground without a pit and kept clean.
- 12.
- 14. Yes, if kept clean.
- 15. The sanitary condition is good. The board of health and the council are at swords points most of the time, the council questions every bill sent in by the board of health and denies their right to go to any expense.

16. Scarlet fever, cases 3.

JAMES B. HAINE, Health Officer.

- 1. St. Bernard.
- 2.850.
- 3. Three hundred and thirty dollars, salaries.
  - 4. One hundred and fifty dollars.
  - 5. Eight.
  - 6. Fourteen.
  - 7. Four.
  - Always kept in good condition.
- They are thoroughly cleansed each day and sprinkled with carbolic acid solution whenever we think it needed.
  - 10. Yes.
- 11. No privy vault cesspool, nor reservoir into which a privy, water closet, stable or sink is drained except it be water tight, shall be established or permitted within fifty feet of any well, spring or other source of water supply used for drinking or culinary purposes.

  12. Fifty feet if possible,

  - 14. No.
- 15. Our village is in good condition; prospering every day; cement walks and

in most parts excellent drainage. 16. Diphtheria and membranous croup, 8 cases, 5 deaths; typhoid fever, 3 cases.

DR. S. B. HOWARD,

Health Officer.

- 1. SUGAR GROVE.
- 300.
- Twenty-five dollars.
- Twenty dollars.
- 5. Five.
- 6. Ten.
- 7. Ten.
- No.
- The scholars were all vaccinated in 1893.
- 11. Wood, open bottom, about six feet This village is situated on a gravel bank or rather a bed of gravel of the drift formation.
  - 12. Yes.
  - 13. Fifty feet.
- 14. Yes, but we have a rule governing the construction and keeping the pens.
- 15. Good. Have good well water at 24 to 26 feet; also artesian wells of soft; water at 200 feet.
- 16. Diphtheria and membranous croup, 1 case, 1 death; scarlet fever, 1 case; typhoid fever, 1 case.

DR. EDMUND R. BROWN,

Health Officer.

- 1. SUMMERFIELD.
- 600
- Twenty-five dollars.
- Twelve dollars.
- Seven regular, four called meetings.
- Four.

- 7. Three abated; one was let go, error of Board.
- 8. I went and looked once; as far as I could see they were all right.
- No.
- 11. On top of ground and cleaned twice a year.
- 12. No.
- 13. There are none nearer than fifty feet that is known of.
- Yes.
- 15. Good with the exception of hog pens and one railroad culvert.

JOHN E. MOSELEY. Health Officer.

- SYCAMORE.
- 900.
- About fifty dollars.
- 4. Thirty dollars.
- 5. Six.
- 6. Six or eight. 7. A11.
- 8. Yes.
- 9 Good.
- We have very few privy vaults. 10.
- Our usual plan is to have ground 11. level, place trap door at back of building so that same may be readily cleaned with shovel.
- 12. We have never been called upon to interfere in this matter as there is plenty of room here, and I know of no privy nearer than 12 to 15 ft. from well.
  - Under certain restrictions, yes. 14.
- Our town is in very good sanitary condition, we have good natural drainage and good water and by looking after it carefully we are able to keep the sanitary condition good.

16. Scarlet fever, 3 cases; measles, 10 cases; whooping cough, 4 cases.

R S. GALLEHER,

Health Officer.

- SYLVANIA.
- 600.
- One.
- 6. Seven.
- Seven.
- No. 8.
- 10. No.
- They are usually constructed above 11. ground.
- 12. Yes.
- Fifty feet. 13.
- 14.
- The sanitary condition very good, 15. there is some neglect in keeping privy vaults clean, but when complaint is made they was cleaned without trouble.

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16. Typhoid fever, 1 case; whooping cough, 3 cases.

> GEO. A. CRANDALL, Health Officer.

- 1. THORNVILLE.
- 600.
- Five dollars.
- Ten dollars.
- 5. Meet when necessary.
- Fifteen.
- Fifteen. 7.
- 9. Good, we had three cases of scarlet fever. I fumigated the house since then; we have no new cases, think it was in school house.
- 10. No.
- 12. Yes.
- 13. Thirty feet.
- 14. Yes. 15. The sanitary condition of our village is good. We have no changes we deem necessary to make.
- 16. Scarlet fever, 3 cases.

W. T. STEVENS, Health Officer.

- 1. TIPPECANOE CITY.
- 2. 1,600.
- 3. For medicine and help, forty-two dollars and eighty-five cents.
- 4. Fifty dollars, and thirty-five dollars to secretary.
  - 5. 25.
  - 6. Twenty-five and thirty.
  - All of them.
  - Yes.
  - 9. In first class.
- 10. Yes.
- 11. Water-tight.
- 12. Yes. 13, Fifty feet.
- Yes.
- 15. The present sanitary condition of the village is in first class condition, and I do not know of any dangers at present
- 16. Diphtheria and membranous croup, 10 cases; scarlet fever, 1 case; typhoid fever, 10 cases, 1 death; whooping cough, 23 cases.

W. H. STRADER, Health Officer.

- 1. Tontogany.
- Seventy-five dollars.
- **. 4**. Nothing.
- Ten.
- 6. About fifty.
- 7. Fifty.

- 8. Yes.
  9. The grounds were cleaned, and all garbage burned. Privys were cleaned and put in good condition.
- 10. No.
- 11. Usually a vault dug about three feet deep.
  - 12. Five rods.
  - 14. Have been declared a nuisance.
- 15. The sanitary condition is good. We have been very thorough during the last year in cleaning up the town. It has never been healthier. The doctors complain of its being distressedly healthy.

16. Diphtheria and membranous croup. 2 cases; scarlet fever, 3 cases; typhoid fever, 1 case; measles, 18; whooping cough, 3.

> R. J. COLLIN, Health Officer.

- 1. TUSCARAWAS.
- 500.
- Fifteen dollars.
- Three. 5.
- 6. Four.
- 7. Four. 8. Yes.
- Yes.
   Good excepting smoke and sulphur fumes escaping from furnaces.
- 10. To some extent.
- 11. Shallow, dry vault of brick and cement, owners to use ashes or dust as an absorbent,
- 12. Yes.
- 13. Over fifty feet.
- 14. Yes.
  15. Present condition good. Some garbage and hog pens should be cleaned
- 16. Diphtheria and membranous croup, 9 cases; typhoid fever, 3 cases; measles, 1 case; whooping cough, 10 cases.

DR. C. D. KURTZ,

Health Officer.

- 1. UHRICHSVILLE.
- 2. Near 5,000.
- 3 About \$200.4. Fifty dollars per annum until May 1, since then twenty-five dollars per annum.
- 5. Seventeen.6. Since May 8, I issued 234 notices to abate nuisances, some of these (perhaps 8 or 10) were second notices for same nuisance. The only trouble we had was with our scavenger regulations; caused 5 arrests for violation of these.
  - 7. Nearly all.
  - 8. Yes.
- 9. All right, except made some suggestions as to light in Uhrich street building.

10. Yes.

11. Water tight vault, drawer or sewer attachment.

12. No.

14. Our present orders prohibit from March to October. We are now at work to prohibit all the time.

15. Condition fair. We need more sewers and a better system of attending to privies. We expect to come much

better this coming season.

16 Diphtheria and membranous croup, 4 cases; 1 death; scarlet fever, 2 cases; typhoid fever, 8 cases; measles, 1 death; whooping cough, 1 death. This report is from May, before that I find among death certificates 1 diphtheria, 1 measles, 1 whooping cough, making as above. Physicians do not report.

DR. JAMES A. McCollam,

Health Officer.

- 1. UNION CITY.
- 2. 700.
- 3. One hundred and twenty-five dollars.
  - One hundred dollars.
  - 5. Seventeen.
  - 6. Forty-two.
- 7. Forty-two, including thirty-two privy vaults.

8. They were.

- 9. In good condition; grounds high and dry; good water supplied by an extension of Holly system of water works from Indiana side.
- 10. It does not, except as to distance from wells.
- 11. This is left entirely to the option of the builder; usually a hole dug in the ground and house built over it.

12. It does.

13. Fifty feet or more.

14. They are subject to sanitary in-

spection.

- 15. The present sanitary condition of our village is good. What we need most in way of improvements is uniformity in the construction of privies and the abolition of the vault system.
- 16. Scarlet fever, 1 case; typhoid fever, 7 cases; 2 deaths; whooping cough, 1.

D. J. Wise, Health Officer.

- 1. UPPER SANDUSKY.
- 2. 3,500.
- 3. One hundred and seventy-five dollars.
- 4. One hundred and twenty-five dollars.
  - 5. Eight or ten.
  - 6. About one hundred and fifty.

- 7. About one hundred.
- 8. No.
- 10. No.
- 12. No.
- 14. We have a city limit; no hog pen allowed within 75 feet of dwelling.

15. City in a pretty fair condition.

16. Diphtheria and membranous croup, 4 cases, 1 death; scarlet fever, 4 cases; measles, 20.

Dr. O. C. Stutz, Health Officer.

- 1. VANLUE.
- . 400.
- Nothing to my knowledge.
- 4. No salary.
- 5. But one. 6 One.
- 6 One. 7. One.
- 7. Oue.
- 8. They were not.
- 9. We have a fine brick school building of four large well ventilated rooms and spacious hallways with basement.

10. No.

- 11. Many privies are without vaults and cleaned out spring and fall, while others are much neglected, simply a hole full of filth.
  - 12. No.
  - 14. Yes.
- 15. The sanitary condition of our village is moderate. With few exceptions our citizens take pride in keeping everything clean around their premises,

16. No deaths from contagious dis-

eases the past year.

Dr. J. L. Schrote, Health Officer.

- 1. WADSWORTH.
- 2. 2.000.
- 3. Nothing.
- 4. Nothing.
- 5. Fifteen since July, '96.
- 6. Thirty-five.
- 7. Thirty.
- 8. Yes.
- Good as far as the construction will permit.

10. By ordinance prevents their construction altogether.

13. Answered by question No. 10.

- 14. They are under certain restrictions.
  15. At present very fair. More sewerage is required and if the personel of the present board continues this matter will receive attention in the spring.
  - 16 Typhoid fever, 3 cases.

DR. G. N. LYMAN, Health Officer.

- 1. WAPAKONETA.
- 2. About 4,500,
- 3. Seventy-eight dollars and seventy-five cents.
  - 4. Thirty-six dollars.
  - 5. Eight.
  - 6. Fourteen.
  - 7. Fourteen.
  - 8. No
- 10. No.
- 11. A hole dug in the ground and walled with brick or plank.
- 12. No.
- 14. Yes.
- 16. Diphtheria and membranous croup, 9 cases, 4 deaths; typhoid fever, 2 deaths.

C. KOHLER, Health Officer.

- 1. WASHINGTONVILLE.
- 2. 1.000.
- Seventy-five dollars.
- 4. Twenty-five dollars.
- 5. Ten.
- 6. Twenty.
- 7. All.
- 8. Not by the board of health. The school board has been acting as a sanitary committee.
  - 9. They are in good condition.
- 10. Yes.
- 11. Shallow so they can be easily cleaued, but no regularly constructed vault impervious to fecal accumulations.
- 12. Yes.
- 13. Fifty feet.
- 14. Yes.
- 15. The sanitary condition judging from absence of contagious diseases almost entirely of a serious nature would be considered good.
- 16. Diphtheria and membranous croup, 3 cases 1 death; scarlet fever, 1 case; typhoid fever, 6 cases; whooping cough, 25 cases.

Dr. J. C. Gorsuch, Health Officer.

- 1. WATERVILLE.
- 2. 750
- 3. Fourteen dollars and fifty cents.
- 4. Twelve dollars.
- Three.
- 6. One.
- 7. One.
- 8. Yes.
- 9. First class in every respect.
- 10. Yes.
- 11. All privy vaults hereafter constructed shall be of stone or hard brick, with walls and bottom not less than eight

inches thick, laid with full joint cement mortar and be cement plastered inside and out so as to be perfectly water-tight.

12. Not less than fifty feet.

14. Yes.

Dr. Samuel Downs, Health Officer.

- 1. WAUSEON.
- 2, 2,500.
- 3. Nothing only in general way.
- 4. Fifteen dollars.
- 5. They met twice.
- 5. Twenty-five or thirty.
- 7. All that have been reported.
- 8. It has not, but no complaint has been made.
- 9. The janitor, I am sure, looks after the school house and vaults in good shape.
  - 10. They do not.
- 11. In different way, some brick some plank, as a general thing they are kept well cleaned in the town.
- 12. No attention is paid to that.
- 13, None.
- 14. They are not allowed in summer time.
- 15. Is in very good condition; on responsibility of my own, I have succeeded in having all cases to my knowledge properly attended to.
- Scarlet fever, 2 cases.

ALFRED R. HILL, Health Officer.

- 1. WAVERLY.
- 2 2 000
- 3. One hundred and twenty-seven dollars and fifty-eight cents.
  - 4. One hundred dollars.
  - 5. Twelve.
  - 6. Twenty-four.
  - 7. Twenty-four.
  - 8. Yes.
- 9. Found in fair condition; ventilation fair; made some changes in water closets.
- 10. Yes.11. We have the pit ten feet deep walled up with brick and lime mortar,
- 12. Yes.
  13. One hundred and fifty feet.
- 15. One 14. No.
- 15. During the past year the sanitary condition of our town has been very good and we have very little trouble in keeping it so; this is the effect of a rigid enforcement of the rules at the start; we have scarcely any trouble now in that line.
- 16. Diphtheria and membranous croup,

cases 8, deaths 1; scarlet fever, cases 5; typhoid fever, cases 3, deaths 1; measles, cases 126.

> G. D. EMMITT, Health Officer.

- 1. WAYNESBURG.
- 3. Thirty-four dollars.
- 4. Twenty dollars.
- 5. Five.
- Ten. 6,
- Ten.
- 8, Yes.
- Good. 9.
- 10. Yes.
- 11. As laid down in Ohio health laws.
- Yes; none nearer than fifty feet.
- 14. Yes; but under the rules few are maintained.
- 15. The conditions are good and I know of none that are necessary.
- 16. Typhoid fever, cases 5, deaths 1; whooping cough, cases 30, deaths 3.

DR. E. G. McCormick, Health Officer.

- 1. WAYNESFIELD.
- 600.
- 3. Six dollars.
- 4. None.
- Three. 5
- 6. Three.
- 7. Three. 8. No.
- 10. No.
- 11. Vaults; some have boxes which can be removed at any time and emptied.
- Yes. 13. Fifty feet.
- Yes. 14.

12.

- 15. Fairly good; we made a general cleaning up in November; ordered all privies cleaned and disinfected; should be improvement in the construction of
- privy vaults.

  16. Although diphtheria and membranous croup were raging to quite an extent in some of our neighboring villages, also within three miles in the country, we succeeded in keeping it out of our village and did not have a single death to report from contagious disease.

S. H. McPheron, Health Officer.

- 1. WAYNESVILLE.
- One hundred and seventy dollars and seventy-five cents.

- Thirty-two dollars.
- 5. Eight.
- 6. Eight. 7. Eight.
- Yes. 8.
- 9. They have the Smead system of heating and dry closets. Condition as good as can be had with that system.
  - 10. Yes.
- 11. There are no new ones and none have been built since this board was organized.
  - Yes.
- 13. Fifty feet.
- Yes, from Nov. 15, to April 15. 14.
- 15. Good condition.
- 16. Diphtheria and membranous croup, 1 case; whooping cough, 4 cases.

DR. W. E. OGLESBEE,

Health Officer.

- 1. WELLINGTON.
  - 2.500.
- 3. Thirteen dollars and fifty-five cents.
  - 4. One hundred dollars.
  - 5. Three.
  - Quite a number, probably forty. 6.
  - All of them. 7.
  - 8. They have been.
  - 9. Good condition.
- 10. No.
- Usually on top of the ground. 11.
- 12. No.
- 14. Not within 200 yards of any residence other than the owner and not then without permission.

15. Good as can be without water works and a thorough system of sewer-

16. Scarlet fever, 15 cases; typhoid fever, 7 cases; measles, 4 cases; whooping cough 3 cases.

> M. W. LANG, Health Officer.

- 1. WEST ALEXANDRIA.
- 3. Forty-five dollars sixty-three cents.
- 4. Twenty-five dollars.
- 5. Seven, since Aug. 1, 1896.
- 6. Five.
- 7. Two.
  - No, not specially.
- In good condition as to heating and ventilation. Light is also good.
   Yes, under direction of board of
- health.
- 11. That depends upon the nature of the soil and the distance from well, spring or other water supply. 12. Yes.
- 13. Fifty feet.
- 14. Yes.

15. It is fair, although the drainage might be improved. If, however, the rules adopted by our board are rigidly enforced, I think the condition will be improved.

16. Diphtheria and membranous croup, 4 cases, 3 deaths.

> W. W. CROUSE, Health Officer.

West Jefferson.

About 1,000.

Fifteen dollars and sixty-five cents.

Thirty dollars.

- 5. Seven.
- Nine. 6.
- 7. Nine. No.
- Yes.
- 10.
- 11. By digging a hole in the ground from six to eight feet deep, and walling with plank or brick.

Yes.

- 13. I have forgotten the distance.
- 14. They are; but they are compelled to keep them clean.
- 15. The sanitary condition is fair at present and has been for the past year. 16. None.

W. C. Keyser, Secretary.

1. WEST LIBERTY.

1,300.

- 3. One hundred and one dollars and twenty-five cents.
  - Seventy-five dollars.
  - Two each month.
  - Ten.
  - Nine.
  - Yes.
- They were found to be in good

10. Yes.

- 11. If over fifty feet from a well, just walled up; if under fifty feet, watertight by cement.
- 12. Fifty feet. 13. Fifty feet.

Yes. 14.

- 15. The present sanitary condition seems to be good.
- 16. Scarlet fever, 13 cases; typhoid fever, 6 cases; measles, 1 case.

R. M. FULWIDER,

Health Officer.

- 1. WEST MANCHESTER.
- About 475.
- About sixty dollars.
- Twelve dollars per year.
- I believe four.
- Five or six.

7. All.

Not to my knowledge.

Of course the schoolrooms (3) were all scrubbed out, and were also whitewashed before the present term of school began, September İst.

10. Yes.

11. We have been enforcing the use of water-tight boxes, and dry dirt or lime as a disinfectant and deodorizer.

12. Yes.

- 13. We allow none nearer than fifty feet.
- 14. Only on condition that they be kept perfectly clean, so that there is little or no odor.
- It seems to me that the sanitary condition of our village is about all that could be expected, at the present time. Seems to be exceedingly healthy.

16. Whooping cough, 2 cases.

Dr. J. E. Horn,

Clerk.

- 1. WESTON.
- 1,000.
- 3. Fifteen dollars.
- 4. Nothing.
- 5. One,
- 6. Six. 7.
- All. 8. Yes.
- Splendid. Have the dry closed 9. sytem properly taken care off. Water is driven from well, down to rock.

- 10. No.11. To suit owner's taste or convenience.
  - 12. No.
  - 14. Yes.

15. Fair for country village. No deaths from contagious disease having occurred in three years.

16. Diphtheria and membranous croup, 3 cases; scarlet fever, 10 cases; typhoid fever, 3 cases. The scarlet fever cases were all extremly mild, but were quarantined and treated as though we expected the next case to be fatal in its effect.

> GEO. B. SPENCER, Health Officer.

1. WEST UNION.

- 1,200.
- 3. None.
- 4. None.
- None.
- 6. None.
- 7. None.
- 8. No.
- 9. No.
- 10. No. 11. Pits in ground.
- 12. No.

14. Yes.15. Board has not met for over two years. There is a better general condition from former acts of board.

> DR. W. R. COLEMAN, Health Officer.

- 1. WHITEHOUSE.
- About 600.
- About eight dollars.
- About one dollar.
- Twelve.
- б. Six.
- 7. Four.
- 8. No.
- No. 10.
- Some use boxes, brick or stone. 11.
- 12. No.
- 14. Yes.
- 15. Condition fair. Need better privy vaults. Less hog-pens.
- 16. Scarlet fever, 4 cases.

C. H. ELLIS M. D., Health Officer.

- 1. WILLIAMSPORT.
- 2. 850
- 3 Eighty-six dollars and fifty-eight cents.
  - Twenty-five dollars. 4.
  - 5. Nine.
  - Three hundred. в.
  - Three hundred.
  - Yes.
- 9. Very good, as our building is almost new.
- 10. Yes.11. With With a water-tight receptacle for deposits.
- 12. Not less than fifty feet.
- 14. Conditionally 300 feet from any dwelling.
- 15. Very good; keep it up to present standard.
- 16. Diphtheria and membranous croup, cases, 88, deaths, 7.

DR. G. O. HAYS. Health Officer.

- 1. WILLOUGHBY.
- 3. Nothing but to pay health officer, \$36,00.
  - 5. None.
  - 6. Twenty-seven.
  - Twenty.
  - 8. Yes.
  - Good. 9.
- Yes. 10.
- 11. Not but a few, as our privies are without vaults, and cleaned out once or twice a year as the case may demand.
  - 12. Yes.

- 13. From fifty to seventy feet.
- 14. Yes, if kept clean.
- 15. Good.
- 16. Scarlet fever, cases, 3; typhoid fever, cases, 2, deaths, 1; measles, cases,

DR. GEO. B. DUNBAN, Health Officer.

- 1. WILMINGTON.
- 4,000.
- 3. Outside of health officer, eighty dollars.
  - Seventy-five dollars.
  - 5. Fourteen.
  - 6. About two hundred and fifty.
  - 7. About two hundred.
  - 8. Yes.
  - 9. In excellent condition.
- 10. Yes.
- 11. All vaults must be of stone or hard brick with walls and bottoms not less than eight inches thick, laid with full joint of cement mortar, and be cement plastered inside so as to be perfectly water-tight.
  - 12. Yes., 13. Not nearer than fifty feet.
- 14. No.15. Excellent; what we need most is a better system for disposing of our garbage and street cleanings.
- 16. Diphtheria and membranous croup, cases, 2, deaths, 2; typhoid fever, cases, 15, deaths, 1; whooping cough, cases, many, deaths, 1.

DR. G. M. AUSTIN, Health Officer.

- 1. WINDHAM.
- 220.
- 3. Nothing.
- Nothing. 4.
- 5. Two.
- 6. One.
- 7. One.
- 8. Yes.
- Our school house is well ventilated and in very good condition.
- 10. No.
- 11. Stone or cement bottom.
- 12. Not less than 5 feet.
- 14. Yes.
- 15. Very good.
- 16. Measles, 4 cases.

H. J. HIGLEY, Health Officer.

- 1. WINTON PLACE.
  - 1,200.
- About one hundred and fifty dol-3. lars.
  - 4. Sixty dollars.
  - 5. One each month.

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- Probably about twenty.
- 7. **A**11.
- 8. Not especially, but they are well kept.
- 1Õ.
- 11. If in open ground—walled with stone. if near a cistern they are required to be cemented.
  - 12. Yes.
  - 14. Yes.
- 15. The village is in good sanitary condition. We have city water, and the gutters are flushed in warm weather. For better condition, sewers are needed.
- 16. Diptheria and membranous croup, 8 cases, 2 deaths; measles, 70 cases, 1 death.

JNO. R. FROOME,

Health Officer.

- 1. WOODSFIELD.
- 2. 1,500.
- Nine hundred dollars.
- Fifty dollars a year.
- Seven.
- Thirty.
- 7. Fifty
- 8. Building new one.
- 10. Yes.
- 11. By box.
- Yes. 14.
- Good. 15.
- 16. Diphtheria and membranous croup. 1 case; typhoid fever, 2 cases.

A. S. Baker, Health Officer.

- 1. WORTHINGTON.
- About 475.
- Five dollars. 3.
- Five dollars. 4.
- Two.
- Three. 6.
- 7. Three.
- Ventilation of the rooms by air. Ventilators in the wall connected to the \_ooms at top and bottom by egisters.

- 10. Yes.11. Irarge box with ring in the end by which the box is pulled out and the contents hauled away whenever needed for health and cleanliness.
- 12. Not nearer than fifty feet.
  14. Some pens in the town, well watched by the board.
- 15. Cleaning of surface drains.
- 16. Scarlet fever, one case; Typhoid fever, 4 cases.

DR. D. H. WELLING, Health Officer.

- WYOMING.
- 2,000.
- 3. One hundred and forty dollars.
- One hundred dollars.
- 5. Ten.
- 6. None reported.
- 7. None.
- 8. Yes.
- 9. Excellent.
- 10. Yes.
- 11. Of stone or hard brick laid in cement; bottoms 8 inches thick, walls rise 6 inches above surface, cemented inside; made water tight,
- 12. Yes.
- 13. Not less than 50 feet.
- 14. None.
- 15. Sanitary condition very good. No changes or improvements that are at present practicable.
- 16. Diphtheria and membranous croup one case; scarlet fever 7 cases.

A. M. VANDYKE,

Health Officer.

- ZOAR. 1.
- 2. 250.
- 14. No.
- 15. The present sanitary condition of the village is very good.
- 16. Deaths none, cases none.

DR. CLEMENS BREIL,

Health Officer.

Ohio State Board of Health.

Office of the Secretary,

Columbus, Ohio, December, 1896.

To the Clerk of the Township Board of Health:

DEAR SIR—The law makes it the duty of your board of health to make an annual report of the State Board of Health. We desire that this report shall be for the year ending December 31, 1896.

Will you please answer the following questions, and mail your report as soon after the close of the year as possible.

An addressed envelope is enclosed herewith for that purpose.

Respectfully,

C. O. PROBST, M. D., Secretary.

# QUESTIONS.

- 1. Name of township.
- 2. County.
- 3. Estimated population, excluding incorporated cities or villages in the township.
  - 4. Name of clerk.
  - 5. Has your board of health adopted and published the rules and regulations?
  - 6. How many meetings were held during the year?
- 7. If your board has appointed a health officer, please give his name and address.
- 8. Has your board of health examined the sanitary condition of school houses within the township.
  - 9. If so, in what condition were they found?
  - 10. Did your board close any school on account of contagious disease?
  - 11. If so, state-
    - (a) How many schools were closed?
    - (b) How long a time for each?
    - (c) On account of what disease?
  - 12. How many nuisances were abated by your board during the year?
  - 13. What nuisances, if any, still exist in the township?
  - 14. How much did the board of health cost the township for the year?
- 15. Give the number of cases of and deaths from the following contagious diseases reported to your board during the year:

Diphtheria	Cases	Deaths
Membranous croup		
Scarlet fever		
Typhoid fever		
Measles		
Whooping cough		

16. What suggestions have you to offer for increasing the efficiency of township boards of health?



# ANNUAL REPORTS OF TOWNSHIP BOARDS OF HEALTH.

#### ADAMS COUNTY.

Franklin. Population, 1,500. No meetings held. No rules adopted. Nothing done.

GREEN. Population, 650.

Five meetings held. No rules adopted. Eight cases of diphtheria quarantined. Annual expenses, \$75.

JEFFERSON. Population, 3,947. Has adopted rules. Has a health officer. Met once. Physicans do not report contagious diseases. Annual expense, **\$**5.00.

LIBERTY. Population, 1,000.

No rules. No health officer. meetings. No expenses.

MEIGS. Population, 2,300.

Have adopted rules. No health officer. Nothing spent.

OLIVER. Population, 1,000.

No organization. Nothing done.

TIFFIN. Population, 2,000. Have rules. No health officer. Nothing spent.

WAYNE. Population, 1,600. No rules. No health officer. One meeting. Eight cases of diphtheria.

# ALLEN COUNTY.

AMANDA. Population, 1,100. Have adopted rules. No meetings held.

MARION. Population, 4,800.

No rules adopted. Held one meeting. Expenses, \$4.50.

MONROE. Population, 2,000.

Have adopted rules. Appointed health officer. Held two meetings. Reports one case scarlet fever.

SUGARCREEK. Population, 1,100. No rules adopted. No meetings held. No health officer appointed.

# ASHLAND COUNTY.

HANOVER. Population, 500. Have adopted rules. Held one meeting. Clerk is health officer. Expenses, \$5.00.

LAKE. Population, 800.

Have adopted rules. No health officer. Reports four cases diphtheria with one death.

ORANGE. Population, 1 000.

No organization.

Population, 800. PERRY.

Have adopted rules. Meet each month. Clerk is health officer. Expenses, \$25.

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RUGGLES. Population, 700. Held one meeting. Health officer appointed. No expenses.

SULLIVAN. Population, 500.

Held one meeting. Have health officer. Have done nothing. Expenses, \$7. Six cases scarlet fever, four cases typhoid fever and six cases whooping cough reported.

# ASHTABULA COUNTY.

ASHTABULA. Population, 1,200. No rules adopted. Two meetings held. No health officer. Nothing done. Expenses, \$10. Four cases of diphtheria, two cases of scarlet fever, one case, one death of typhoid fever. Consumption one case, one death reported.

Andover. Population, 750.

Rules adopted. Two meetings held. Clerk acts as health officer. Expenses, \$6. Two cases of scarlet fever reported.

AUSTINBURG. Population, 1,066.
Rules adopted. Held one meeting.
Health officer appointed. Expenses, \$16.

COLEBROOK. Population, 950.

Rules adopted. One meeting held. Clerk acts as health officer. One school closed six weeks for scarlet fever. School houses examined. Expenses, \$10 to \$15.

CONNEAUT. Population, 8,500.

No rules adopted. Twelve meetings held. No health officer. Three nuisances abated. No expenses.

DENMARK. Population, 900.

No rules adopted, One meeting held. No health officer. Nothing done. Expense, \$3.

GENEVA. Population, 5,000. Rules adopted. Three meetings held. Health officeer appointed. School houses examined. Five nuisances abated. Expense, \$40. Two cases of diphtheria, two cases of scarlet fever, four cases and one death of tpyhoid fever and four cases of measles reported.

HARPERSFIELD. Population, not given. No rules. One meeting held. Health officer appointed. Nothing done. One case of diphtheria reported.

HARTSGROVE, Population, 650. Rules adopted. No meetings. Nothing done. No expense.

KINGSVILLE. Population, 1,700. Rules adopted. Three meetings. thing done. Two cases of diphtheria and four cases of scarlet fever reported.

MORGAN. Population, 750.

Rules adopted. One meeting. Health

officer appointed. Examined school houses. No expense. Two cases and one death of scarlet fever reported.

NEW LYME. Population 600.

Three meetings. No health officer. Examined school houses. One nuisance abated. Expense, \$10.

ORWELL, Population, 800.

Adopted rules. Have health officer. Four nuisances abated. Expense, \$9.50.

PIERPONT. Population, 1,000.

Adopted rules. Held one meeting. Have health officer. Have health officer. One nuisance abated. Expense, \$4.00. Fifty cases of whooping cough reported.

SAYBROOK. Population, 1,200.

Adopted rules, No meetings. Have health officer. Two nuisances abated. No expense.

WAYNE. Population, 800.

No rules. Nothing done. No expense.

WINDSOR. Population, 500.

Adopted rules. Four meetings. Have health officer. Examined school houses. Expense, \$10.

#### ATHENS COUNTY.

AMES. Population, 900.

No rules. No meetings. Nothing done. Four cases of diphtheria and two cases of typhoid fever reported. No expense.

ATHENS. Population, not given.

No rules. Closed two schools for three weeks on account of scarlet fever. Fxpense, \$20. Four cases and two deaths of scarlet fever.

CANAAN. Population, 1,000.

No rules. No meetings. Health officer appointed. One school closed two weeks on account of diphtheria. Two cases of diphtheria and one case and one death of membranous croup.

CARTHAGE. Population, not given. Adopted rules. Held three meetings. Examined school houses. Closed school for two months on account of scarlet fever. Nuisance abated. Expense, \$3. Four cases of scarlet fever, five cases and one death of typhoid fever and one case of measles.

DOVER. Population, 1.500.

No rules. Held two meetings. Health officer appointed. School houses examined. Closed two schools three weeks each on account of diphtheria and scarlet fever. Expense, \$24.00 Nine cases, two deaths, diphtheria; thirty three cases, scarlet fever; one case, typhoid fever; seven cases whooping cough.

Long. Population, not given. Nothing No rules. No meetings. done.

Troy. Population, 700.

Adopted rules. Held one meeting. Have health officer. Examined school houses. Adopted one nuisance. Expense, \$10.00. Two cases diphtheria. Five cases scarlet fever.

WATERLOO. Population, 2,500. No rules. Trustees act as health officers. Closed two schoo's three weeks on account of scarlet fever.

# AUGLAIZE COUNTY.

CLAY. Population, 1,000.

Rules adopted. Held two meetings. Have health officer. Abated two nuisances. Expense, \$18.15.

DUCHANQUET. Population, 1,000. Rules adopted. Held two meetings.

No health officer. Abated two nuisances. Expense, \$50.00.

GERMAN. Population, 3,600.

Rules adopted. Held two meetings. Clerk is health officer. Examined school houses. Expense, \$10.00. Two cases, one death diphtheria. One case, one death membranous croup.

GOSHEN. Population, 300,

Rules adopted. Held eight meetings. Have health officer. Examined school houses. Closed three schools for five weeks on account of diphtheria and membranous croup. Expenses, \$19.50. Forty-six cases diphtheria. Twenty-six cases, six deaths, membranous croup. Eight cases typhoid fever.

NOBLE. Population, 1,500.

No rules. No meetings. Abated two nuisances.

Pusheta. Population, not given.

No rules. Held one meeting. Nothing done. One case, one death typhoid fever. No expense.

Union. Population, 1,600.

Rules adopted. Held two meetings. No health officer. Nothing done. Expense, \$5.25. One case diphtheria.

WASHINGTON. Population, 1,500.

Rules adopted. Held one meeting. Have health officer. Nothing done. Expense, \$5.00.

# BELMONT COUNTY.

Flushing. Population, 2,500. Rules adopted. No meetings held. Health officer appointed. School houses examined. Closed one school one week on account of scarlet fever. Two cases, two deaths, membranous croup. One case, one death scarlet fever. No expense.

GOSHEN. Population, 1,350.

Rules adopted. Held two meetings. Closed one school for three weeks on account of membranous croup. Nine

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cases, three deaths, membranous croup. Two cases scarlet fever, one case, one death, typhoid fever.

KIRKWOOD. Population, 1,200. No rules. Two meetings held. Have health officer. Examined school houses. Expenses, \$12.00.

MEAD. Population, 900.

Rules adopted. Held one meeting. Nothing done.

PEASE. Population, 4,000.

Rules adopted. Held four or five meetings. Have two health officers. Closed two schools from two to eight weeks on account of small-pox. Three or four nuisances abated. Expenses, \$500.00. One case scarlet fever. One case typhoid fever.

SOMERSET. Population, not given.

Rules adopted. Held four or five meetings. Have health officer. Examined school houses. Closed one school two weeks on account of scarlet fever. Expenses, \$75.00. Eight or ten cases scarlet fever with one death.

WARREN. Population, 1,700.

Rules adopted. Held two meetings. health officer. Abated seven nuisances. Expense, \$20.00. One case, one death diphtheria. Three cases, one death, scarlet fever.

WASHINGTON. Population, 2,000.

Rules adopted. Held six meetings. Have health officer. Closed one school one week on account of diphtheria. Expense, \$120. Three cases, three deaths, diphtheria.

WAYNE. Population, 1,800.

Rules adopted. Held three meetings. Nothing done. Expense, \$18.00.

WHEELING. Population, 1,500.

Rules adopted. Held three meetings. Closed one school ten days on account of diphtheria. Expense, \$10.00. Diphtheria, one death; four cases scarlet fever.

# BROWN COUNTY.

Byrd. Population, 1,800.

No rules. No meetings. Nothing done.

FRANKLIN. Population, 1,400.

No rules. No meetings. No expense. Nothing done.

GREEN. Population, 1,850.

No rules. Two meetings held. Closed two schools, one and two weeks on account of diphtheria. Expense \$3.00. Three cases, one death, diphtheria.

# BUTLER COUNTY.

FAIRFIELD. Population, 2,445.

No rules. Held nine meeting. Have three health officers. Examined school-

houses.' Closed two schools about two weeks on account of diphtheria and chicken-pox. Abated eleven nuisances. Expense, \$55.00. Five cases diphtheria, five cases whooping cough.

HANOVER. Population, 1,300.

Rules adopted. Held one meeting. Have health officer. Examined schoolhouses. Abated five nuisances. Expense, \$10 00.

OXFORD. Population, not given. Rules adopted. Held one meeting. No health\_officer. Nothing done. No expense. Four cases typhoid fever.

ST. CLAIR. Population, 1,300.

Rules adopted. Held three meetings. No health officer. Abated one nuisance. Expense, \$26.00. One case diphtheria.

#### CARROLL COUNTY.

AUGUSTA. Population, 1,350. Rules adopted. Held two meetings. Expense, \$18.50. One case, one death, diphtheria.

Brown. Population, 1,500.

Rules adopted. Held one meeting. Have health officer. Expense, \$6,00. Nothing done. One case, one death, membranous croup; one case, one death, whooping cough.

CENTER. Population, 1,500.

No rules. No meetings. Nothing done. Ten cases typhoid fever.

Fox. Population, 1,200.

Rules adopted. Held one meeting. Clerk acts as health officer. Nothing done. Expense, \$6.10.

LOUDON. Population, 1,000. No rules. No meetings. Have health officer. Nothing done. No expense.

MONROE. Population, 2,000. No rules. No meetings. Have health officer. No expense. Nothing done.

PERRY. Population, 1,500.

No rules. No meetings. No health officer. Nothing done.

Rose. Population, 1,600.

No rules. Held one meeting. Have health officer. Closed one school twentysix days on account of scarlet fever. No expense. One case scarlet fever.

Union. Population, 800.

No rules. No meetings. Have health officer. No expense. Nothing done.

CHAMPAIGN. Population, 1,600.

Rules adopted. Held twelve meetings. Expense, \$3.00. Five cases scarlet fever. Nothing done.

JACKSON. Population, 1,500.

Rules adopted. Held fourteen meetings. Have health officer. Examined school houses. Closed two schools for one week on account scarlet fever. Expense.

pense, \$29.65. Eight cases, three deaths. Seven cases scarlet fever.

MAD RIVER. Population, 2,500.

Rules adopted. Held one meeting. No health officer. Nothing done. No expense. Two cases, one death, diphtheria. One case scarlet fever.

URBANA. Population, 2,500. Rules adopted. One meeting. No health officer. Nothing done. No ex-

# CLARK COUNTY.

BETHEL. Population, 3,500.

No rules. Three meetings. Nothing done. Expense, \$18.00. Five cases scarlet fever.

GERMAN. Population, 2,000.

Rules adopted. Ten meetings. Closed one school for two weeks on account of scarlet fever. Helped close strawboard works at Urbana. Expense, \$5.00 for quarantining diphtheria cases. Seven cases, one death, diphtheria. Ten cases, scarlet fever.

GREEN. Population, 2,000.

Two meetings. Examined school houses.

HARMONY. Population, 1,890.

Rules adopted. Two meetings. Have health officer. Abated one nuisance. No expense.

PIKE. Population, 1,700.

No rules. Two meetings. Have health officer. Closed one school for one week, one for three weeks on account of scarlet fever and diphtheria. Expense, \$15.00. Five cases, one death, diphtheria. Eight cases, one death, scarlet fever.

# CLERMONT COUNTY.

FRANKLIN. Population, 2,800.
No rules. No meetings. Nothing done. Five cases diphtheria.

MONROE. Population, 1,860.

Rules adopted. Three meetings held. Trustees act as health officer's. Closed one school one week on account diphtheria. Abated one nuisance. Expense, \$26. Two cases, one death, diphtheria; two cases scarlet fever. Physicians do not report.

OHIO. Population, 3,000.

No rules. Three meetings. Have health officer. Nothing done. Expense, \$25. One case diphtheria, one case membranous croup.

PIERCE. Population, 2,000.

Twelve meetings. Examined school houses. No expense. Three cases diphtheria, seven cases typhoid fever.

TATE. Population, 2,500. No rules. No meetings. No health

officer. Closed three schools for three weeks on account diphtheria. cases, 2 deaths diphtheria.

Union. Population, 2,000.

Rules adopted. No meetings. Clerk acts as health officer. Nothing done. No expense.

# CLINTON COUNTY.

ADAMS. Population, 600.

Rules adopted. One meeting. Have health officer. No expense. Three cases scarlet fever.

CLARK. Population, 2,300.
Rules adopted. Two meetings. Have health officer. Nothing done. Expense, \$37. One case scarlet fever, five cases measles.

JEFFERSON. Population, 1,500.

Three meetings. Rules adopted. Clerk acts as health officer. One nuisance abated. Expense, \$9.50. Five cases, one death diphtheria, two cases scarlet

RICHLAND. Population, 1,800. No rules. No meetings. No health officer. Eight nuisances abated. No expense. One case membranous croup.

VERNON. Population, 1,700.

Rules adopted. Two meetings. Have health officer. Expense, \$25. Seven cases, one death diphtheria, four cases scarlet fever.

WASHINGTON. Population, 1,500.

No rules. Have health officer. Examined school houses. Closed three schools on account diphtheria. Expense, \$168. Twenty-five cases, three deaths diphtheria, one case, one death membranous croup.

WAYNE. Population, 1,753. No rules. Have health officer. One nuisance abated. Expense, \$10. One case membranous croup, one case whooping cough.

WILSON. Population not given. No rules. No meetings. Have health officer. No expense. Nothing done.

#### COLUMBIANA COUNTY.

KNOX. Population, 2,000. Have rules. One meeting. Nothing done. Expense, \$11.50.
MIDDLETON. Population, 2,000.

No answers.

SALEM. Population, 3,500.
Rules adopted. Two meetings. Trustees act as health officer. Examined school houses. Abated several nuisances. Expense, \$25. Two cases diphtheria, three cases typhoid fever.

SAINT CLAIR. Population, 1,300. Rules adopted. No meetings. health officer. No expense. Nothingdone. Unity. Population, 2,500.

Norules. Three meetings. No health officer. Nothing done. No expense. One case, one death membranous croup, twenty cases, five deaths scarlet fever.

WEST. Population, 1,900.

No rules. No meeting. Have health

#### COSHOCTON COUNTY.

CRAWFORD. Population, 1,000. No rules. No meetings. No health officer. Nothing done. No expense.

FRANKLIN. Population, 1,000.
No rules. No meetings. No health Four cases officer. Nothing done. diphtheria, nine cases, four deaths typhoid fever.

MONROE. Population, 1,300.

No rules. Three meetings. health officer. Examined school houses. Abated several nuisances. Eleven cases, one death typhoid fever, twenty cases whooping cough.

PERRY. Population, 1,250.

No rules. One meeting. Closed one school three weeks on account scarlet fever. Five cases scarlet fever.

TUSCARAWAS. Population not given. Rules adopted. Two meetings. Trustees act as health officer. Examined school houses. Expense, \$150. Three cases diphtheria; one case scarlet fever; one case typhoid fever; one case, one death measles; one case whooping cough.

# CRAWFORD COUNTY.

Bucyrus, Population not given. Rules adopted. Three meetings. Have health officer. Examined school houses. No expense.

CRANBERRY. Population 1,000.

Rules adopted. No Meetings. Clerk acts as health officer. Expense, \$4.50. Two cases scarlet fever, two cases typhoid fever

HOLMES. Population not given. Has no board of health. Two cases typhoid fever, one case whooping cough.

JACKSON. Population, 2,000.

No rules. Two Meetings. Have health officer. Examined schools houses. Expense, \$10. Six cases one death diph-

LIBERTY. Population, 1,700.

No rules. Four meetings. Expens-\$12. One diphtheria one scarlet fever.

Lykens. Population, 1,200.

Two meetings. Have health officer. Abated one nuisance. Expense, \$26.75. Two deaths from whooping cough.

Texas. Population, 600. Rules adopted. No meetings. health officer.

TODD. Population, 950.

Rules adopted. One meeting. Have health officer. Examined school houses. Closed one school for a week on account of diphtheria. Expense, \$8. Four cases, one death diphtheria. Three cases two deaths typhoid lever.

WHETSTONE Population, 1,720. No rules. Twelve meetings. Expense, \$5.00. Three cases, two deaths diphtheria.

# CUYAHOGA COUNTY.

BEDFORD. Population, 2.000. Rules adopted. One meeting. No health officer. Abated one huisance. Expense, \$100. Physicians do not report contagious diseases.

BRECKSVIILE Population, 1,000.
Rules adopted. Two meetings. No

health officer. Examined s\_hool houses. Abated two nuisances. Expense \$2.

BROOKLYN. Population, 4,000.

Rules adopted. Three meetings. Have two health officers. Examined school houses. Expense, \$75. One case scarlet fever, two cases typhoid fever.

EAST CLEVELAND. Population, 1,200. Rules adopted. Two meetings. Have health officer. Examined schools. Abated one nuisance. Expense, \$50. One case, one death diphtheria, seven cases scarlet fever, two cases typhoid fever.

EUCLID. Population, 2,800. Rules adopted. Three meetings. No health officer. Examined school houses. Closed one school a week on account scarlet fever. Abated one nuisance. Expense, \$15. One case diphtheria; one case, one death, membranous croup; two cases scarlet fever; five cases typhoid fever; one case, one death whooping cough.

NEWBURGH. Population, 4,000.

Rules adopted. Twelve meetings. Have health officer. Examined school houses. Abated four nuisances. Expense, \$24. Five cases, one death diphtheria; six cases, one death typhoid fever.

OLMSTED. Population, 1,900.

Rules adopted. No meetings. Have health officer. Examined school houses. Expense, \$25.00.

PARMA. Population, 1,500. No rules. No meetings. Nothing done.

STRONGSVILLE. Population, 1,000. Rules adopted. Have health officer. Examined school houses. No expense. Twelve cases, one death scarlet fever.

WARRENSVILLE. Population, 2.000. No rules. No meetings. Nothing done. No expense.

## DARKE COUNTY.

ALLEN. Population, 1,750.

Rules adopted. Three meetings. Have health officer. Abated two nuisances. Expense \$16.36. One case, one death membranous croup, three typhoid fever.

BUTLER. Population, 1,800.

Rules adopted. Three meetings. Have health officer. Closed two schools two weeks on account scarlet fever and diphtheria. Expense, \$35. Two cases, one death diphtheria; two cases one death scarlet fever; one case typhoid fever.

GERMAN. Population, 1,500.

Rules adopted. Have health officer. Nothing done. Two cases one death diphtheria.

GREENVILLE. Population, not given. Rules adopted. Four meetings. Have health officer. Examined school houses. Abated eleven nuisances. Expense \$150. Three cases diphtheria, seven cases scarlet fever eight cases one death typhoid fever.

HARRISON. Population, 1,500.

No rules. No meetings. Have health officer.

MISSISSINAWA. Population, 1,500. Rules adopted. No meetings. health officer. No expense. Four cases three deaths membranous croup.

MONROE. Population, 2,000.

Rules adopted. Two meetings. Clerk is health officer. Examined school house. Expense, \$12. One case one death membranous croup.

NEAVE. Population, 1,400. Rules adopted. No meetings. Have

health officer. Nothing done.

RICHLAND. Population, 1,500. Rules adopted. One meeting. Clerk acts as health officer. Expense, \$7. Two cases of diphtheria, one case of scarlet fever and five cases of whooping cough.

TWIN. Population, 2,000.

Two meetings. Have health officer. Examined school houses. Closed one school three weeks on account of diphtheria. Five cases and two deaths of diphtheria; three cases and one death of membranous croup; forty-one cases and four deaths of typhoid fever; and three cases of whooping cough.

VAN BUREN. Population, 1,600. Rules adopted. Two meetings. Have health officer. Examined school houses. Expense, \$15. Four cases and one death of diphtheria; three cases of scarlet tever and five cases and two deaths of typhoid fever.

WABASH. Population, 1,600.

Rules adopted. No meetings. Have health officer. Nothing done. Expense, \$7.

WAYNE. Population, 3,600. No rules. One meeting. Closed one school for ten days on account of diphtheria. No expense. Eight cases and one death of diphtheria and one case of scarlet fever.

YORK. Population, 700.

No rules. No meetings. No expense. Nothing done.

# DEFIANCE COUNTY.

ADAMS. Population, 1,800. Several No rules. Nothing done. nuisances exist. Expense, \$10.50 One case of typhoid fever.

DELAWARE. Population, 1,000.

Rules adopted. Two meetings. No health officer. Two nuisances abated. Expense, \$21. Physicians do not report.

HIGHLAND. Population, 2,000.

Rules adopted. Five meetings. Have health officer. Examined school houses. Closed two schools, one for three weeks and one for two weeks on account of scarlet fever and measles. Expense, \$30.50. Eighteen cases and one death of scarlet fever, three cases of typhoid fever and fifty-one cases and one death of measles.

NOBLE. Population, 1,000.

Rules adopted. Have health officer. Nothing done.

RICHLAND. Population, 900.
Rules adopted. Three meetings. One nuisance abated. Expense, \$15. Two cases and one death of scarlet fever.

Tiffin. Population, 2,000.

Rules adopted. One meeting. Have health officer. No expense. No contagious diseases reported.

# DELAWARE COUNTY.

DELAWARE. Population, 1,000.

Rules adopted. Have health othcer. School houses examined. Closed one school two weeks on account of diphtheria. Expense, \$8. Seven cases and one death of diphtheria, one case of membranous croup and three cases of typhoid fever.

GENOA. Population, 1,200.

No rules. One meeting. No health officer. Closed one school two weeks on account of diphtheria. Expense, \$4.50. Six cases of diphtheria.

HARLEM. Population, 1,200.

Rules adopted One meeting. Have health officer. Closed one school one week on account of diphtheria. No expeuse.

# ERIE COUNTY.

FLORENCE. Population, 1,600. Rules adopted. Clerk acts as health officer. Nothing done.

GROTON. Population, 1,000.

No rules. No meetings. Closed one school for a week on account of diphtheria

HURON. Population, 1,000. No rules. Twelve meetings. Examined school houses. No expenses.

MARGARETTA. Population, 2,500.
Rules adopted Three meetings. Have health officer. Expense, \$10.75. Five cases and three deaths of diphtheria and three cases of scarlet fever.

PERKINS. Population, 818.

Rules adopted. Five meetings. Have health officer. Examined school houses. No expense.

# FAIRFIELD COUNTY.

BERNE. Population, 4,200. Rules adopted. Twelve meetings. Nothing done.

CLEAR CREEK. Population, 2,500
No rules. No meetings. Examined school houses. Expense, \$1.50. One case diphtheria.

LIBERTY. Population, 2,750.

Rules adopted. Three meetings. No health officer. Abated two nuisances. Expense, -5.50. Three cases diphtheria. Five cases scarlet fever.

RICHLAND. Population, 1,000.

Rules adopted. Three meetings. Health officer appointed. Expense, \$25. Four cases scarlet fever. Six cases, one death typhoid fever.

# FAYETTE COUNTY.

GREEN. Population, 850.

No rules. No meetings. Have health officer. No expense. Nothing done.

CONCORD. Population, 1,300.

rules. No meetings. Nothing done. No expense.

JASPER. Population, 1,500.

No rules. No meetings. No expense. Nothing done.

MARION. Population, not given. No report. One case scarlet fever.

PERRY. Population, 120.

No ru.es. No meetings. No expense. Nothing done.

Union. Population, not given.

No rules. No meetings. H we health officer. Examined schools. Expense,

WAYNE. Population, 2,000.

adopted. Two meetings. Closed five schools; four for two weeks: one for one week on account of diphtheria. Expense, \$9.00. Thirty cases, one death diphtheria. One case scarlet fever.

# FRANKLIN COUNTY.

Brown. Population, 1,000.

Rules adopted. One meeting. Have health officer. Expense, \$10.00.

CLINTON. Population, 3,000.

Rules adopted. Nine meetings. No health officer. Examined school houses. Three nuisances abated.

Franklin. Population. 3,200.

Rules adopted. Trustees act as health officer. No expense.

HAMILTON. Population, 1,500.

Rules adopted. Three meetings. Clerk acts as health officer. Examined school houses. Closed three schools; one for one week; two for three weeks on account of diphtheria and scarlet fever. Abated five nuisances. Expense, \$40.70. Five cases, one death diphtheria. Eleven cases scarlet fever. Four cases typhoid fever.

Madison. Population, not given. No rules. No meetings. Have health officer. Nothing done. No expense.

MARION. Population, 5,000.

Rules adopted. Three meetings. No health officer. Closed one school two weeks on account of diphtheria and scarlet fever.

MIFFLIN. Population, not given. Rules adopted. Have health officer. Three nuisances abated. Expense, \$67. Two cases diplitheria.

Washington. Population 250.

Rules adopted. Two meetings. Have health officer. Examined school houses. Expense \$25. Seven cases scarlet fever.

# FULTON COUNTY.

DOVER. Population, 1,200, No rules. One meeting. Examined school houses. No expense.

GERMAN. Population, 3,000. No rules. No health officer. Nothing

done.

GORHAM. Population, 2,500. No rules. No meetings. Nothing

PIKE. Population, 1,100.

Rules adopted. Two meetings. Nothing done. No expense.

SWAN CREEK. Population, 2,000. No rules. No meetings. Nothing done. No expense.

# GALLIA COUNTY.

GUYAN. Population, 2,000. Rules adopted. Closed nine schools for two weeks on account diphtheria.

HARRISON. Population, 1,200. No rules. Four meetings. No health officer. Closed one school three weeks on account diph heria.

OHIO. Population, 1,500.

No rules. Four meetings. Have health officer. Examined school houses.

Perry. Population, 2,000.

Rules adopted. Rules adopted. Three meetings. Have health officer. Two nuisances abated Expense, \$20. Five cases, one death, diphtheria. Cases of contagious diseases not all reported.

WALNUT. Population, 1,600.

No rules. One meeting. No health officer. Nothing done. Two cases diphtheria; two cases scarlet fever.

# GEAUGA COUNTY.

Burton. Population, 1,100. No rules. No meetings. No expense. Nothing done.

CHARDON. Population, 500.

Rules adopted. One meeting. Clerk acts as health officer. One school closed one week on account scarlet fever. No expense. One case scarlet fever.

CHESTER. Population, 618.

No rules. No meetings. Nothing done.

HAMBDEN. Population, 500.

No rules. No meetings. Have health officer. Examined school houses. Closed one school about six weeks on account scarlet fever. One nuisance abated. No expense. Two cases scarlet fever; three cases measles.

MIDDLEFIELD. Population, 900.

No rules. Two meetings. Nothing done. One case whooping cough.

Munson. Population, 900.

No rules. No meetings. Three nuisances abated. Three cases typhoid

Munson. Population, 900.

No rules. No meetings. One school closed one week on account measles. No expense.

PARKMAN. Population, 300. No rules. No meetings. Three nuisances abated. Three cases typhoid fever.

Russell. Population, 1,000

Rules adopted. One meeting. Examined school houses. One nuisance abated. No expense. One case membranous croup.

# GREENE COUNTY.

BEAVER CREEK. Population, 2,000. Rules adopted. Two meetings. Clerk acts as health officer. Expense, \$1.50. One case diphtheria; four cases typhoid fever.

JEFFERSON. Population, 1,500. No rules. Two meetings. Trustees act as health officers. Examined school houses. Expense, 55.00. Three cases one death, diphtheria.

Ross. Population, 1,100. Rules adopted. Four meetings, Clerk acts as health officer. Nothing done. Expense

SILVER CREEK. Population, 3,000. No rules. One meeting. Have health Ten nuisances abated. pense, \$20.00. Two cases diphtheria; one case typhoid fever.

XENIA. Population, 5,000. Rules adopted. Three meetings. Clerk acts as health officer. Five nuisances abated. Expense, \$17.85. Two cases diphtheria; five cases scarlet fever. One case, one death, typhoid fever.

#### GUERNSEY COUNTY.

Jackson. Population, 2,000.

Rules adopted. Twelve meetings. Have health officer. Examined school houses. Closed one school two weeks on account diphtheria. Five nuisances abated. Expense, \$5.00. Four cases, two deaths, diphtheria.

MILLWOOD, Population, 1400.

No rules. No meetings. One nuisance abated.

Oxford. Population, 500.

No rules. No meetings. Have health officer. No expense.

VALLEY. Population, 2,000.

Rules adopted. One meeting. Have health officer. Examined school houses. Closed one school one week on account scarlet fever. Expense, \$15.00.

WASHINGTON. Population, 700. Rules adopted. No meetings. health officer. No expense. Nothing done.

# HAMILTON COUNTY.

Anderson. Population, 5,000.

Twelve meetings. Rules adopted. Have health officer. Examined school houses. Abated three nuisances. Eight cases, one death diphtheria. Ten cases scarlet fever. Six cases typhoid fever. Seventeen cases measles. Twenty-two cases whooping cough.

COLORAIN. Population, 3,500. Rules adopted. Three meetings. Clerk acts as health officer. Examined school houses. Closed one school three weeks on account of scarlet fever. Expense, \$60. Five cases, one death diphtheria. Two cases, one death membranous croup. Eight cases, one death, scarlet fever. Four cases, one death, typhoid fever. Twenty cases, one death, measles.

COLUMBIA. Population, 6,000.

Rules adopted. Four meetings. Have health officer. Examined school houses. Expense, \$50. Eight cases diphtheria. Seven cases scarlet fever. One case measles.

CROSBY. Population, 900.

officer, Nothing done. Expense, \$25. Abated one nuisance. One case diphtheria. Three cases membranous croup.

DELHI. Population, not given.
Rules adopted. No meetings. Trustees act as health officers. Closed one school three weeks on account diphtheria. Abated one nuisance. Expense, \$64.80. Three deaths, diphtheria. Cases not reported.

GREEN. Population, not given.

Twelve meetings. Have health officer. Exam ned school houses. Expense, \$2.35. Eleven cases, two deaths, diphtheria. Three cases, one death, scarlet fever. Four cases typhoid fever. Fourteen cases measles. One case whooping cough.

MILL CREEK. Population, 1,500. Rules adopted. Seven meetings. Clerk acts as health officer. Examined school houses. Abated seven nuisances. Expense, \$212. Five cases, four deaths Two cases scarlet lever. diphtheria. One case measles.

Spencer. Population, 170.

Rules adopted. Two meetings. Clerk acts as health officer. Examined school houses. Expense, \$10.50.

SPRINGFIELD. Population, not given Rules adopted. Six meetings: Clerk acts as health officer. Expense, \$5.00. Seven cases, two deaths, diphtheria. Three cases scarlet fever. One case

Sycamore. Population, 6,000.

Rules adopted. Six meetings. Abated three nuisances.

Symmes. Population, 3,000.

Rules adopted. Monthly meetings. Ilave health officer. Examined school houses. Expense, \$25. Four cases, one death, diphtheria. Three cases, one death, diphtheria. Three cases, one death, measles. Six cases, one death, whooping cough.

WHITEWATER. Population, 900.

Rules adopted. Three meetings. Have health officer. Examined school houses. Closed one school for a week on account of diphtheria. Abated one nuisance. Expense, \$18. Three cases diphtheria.

# HANCOCK COUNTY.

BLANCHARD. Population, not given. Not organized as a board of health.

BIG LICK. Population, 800.

No rules. One meeting. Nothing

MADISON. Population, 1,000. No rules. Six meetings. Have health officer. Burned dead animals.

ORANGE. Population, 900.

No rules. Four meetings. Clerk acts

as health officer. Closed two schools Norules. Twelve meetings. No health i two weeks on account scarlet fever. Abated one nuisance. Expense, \$20. One case, one death, diphtheria. Six cases scarlet fever. Three cases typhoid

> PORTAGE. Population, 700. Rules adopted. No meetings. health officer. Nothing done.

Washington Population, 1,000. Rules adopted. Clerk acts as health officer. No expense.

# HARDIN COUNTY.

Buck.

Population, 2,000. adopted. Twelve meetings. Rules adopted. Clerk acts as health officer. Closed four schools on account diphtheria. Abated one nuisance. Expense, \$50. Ten cases, Three cases one death, diphtheria. scarlet fever.

DUDLEY. Population, 1,400.

Rules adopted. Two meetings. No health officer. Closed two schools ten days on account scarlet fever and diphtheria. Expense, \$40. Eleven cases, three deaths diphtheria. Seven cases scarlet fever. One case, one death, typhoid fever.

ACKSON Population, 900.

Rules adopted. One meeting. Have health officer. Examined school houses. Closed three schools two to three weeks on account scarlet fever and diphtheria. Abated one nuisance. Four cases one death, diphtheria. Five cases scarlet

McDonald. Population, 2,500.

Rules adopted. Six meetings. Clerk acts as health officer. Closed six schools from one to three weeks on account diphtheria. Disinfected eight houses. Expense, \$100. Thirty-four cases, seven deaths, diphtheria. Three cases, three deaths, membranous croup. Two cases typhoid fever.

ROUNDHEAD. Population, 1,000. Rules adopted. Ten meetings. Have health officer. Examined school houses. Closed four schools on account diphtheria. Expense, \$125.00. Thirty-four cases, four deaths, diphtheria. One case, one death, membranous croup. One case, one death, scarlet fever. Fourteen cases, one death, typhoid fever.

WASHINGTON. Population, 1,500. Rules adopted. One meeting. Have health officer. Nothing done.

# HARRISON COUNTY.

MOOREFIELD. Population, 1,500.
Rules adopted, Two meetings. Have health officer. No expense. One case diphtheria.

NOTTINGHAM. Population, 800. Rules adopted. Two meetings. Clerk acts as health officer. Expense, \$25.00. One case diphtheria; one case scarlet

RUMLEY. Population, not given. Rules adopted. One meeting. Have health officer.

WASHINGTON. Population, 1,000. Rules adopted. One meeting. No health officer. Expense, \$10.00.

#### HENRY COUNTY.

FREEDOM. Population, 900. Nothing done.

HARRISON. Population, 1,500. One meeting. Closed one school for a month on account scarlet fever. Expense, \$10 00. Six cases scarlet fever. Two cases typhoid fever.

LIBERTY. Population, not given. Rules adopted. One meeting. Have health officer. Expense, \$6.00. One case typhoid fever.

MONROE. Population, not given. Rules adopted. One meeting. No expense.

WASHINGTON. Population, not given. Rules adopted. Twelve meetings. Closed one school two weeks on account diphtheria. One case diphtheria. One case typhoid tever.

#### HIGHLAND COUNTY.

JACKSON. Population, 1,200, Nothing done.

Madison. Population, 5,000.

Rules adopted. Four meetings. Two nuisances abated. Expense, \$10.50. One case membranous croup.

PAINT. Population, 1,400.

Rules adopted. Two meetings. Have health officer. Examined school houses. Closed four schools for two weeks on account diphtheria.

PENN. Population, 1,750. No rules. One meeting. Trustees act as health officers. Abated one nuisance. Expense, \$4 38. One case diphtheria. Four cases scarlet fever.

SALEM. Population, 1,000. Nothing done.

# HOCKING COUNTY.

Benton. Population, 300. Rules adopted. Clerk acts as health officer. No expense.

GOOD HOPE. Population, 1,200. No rules. One meeting. Nothing done.

#### HOLMES COUNTY.

HARDY. Population, 1,500. Rules adopted. Monthly meetings. Have health officer. Examined school houses. No expenses. One case, one death, membranous croup.

KILLBUCK. Population, 1,750. No organized board.

PAINT. Population, not given. Nothing done.

RIPLEY. Population, 1,300. No rules. Three meetings. Abated one nuisance. Expense, \$14.90. One case scarlet fever.

WALNUT CREEK. Population, 900. No rules, Closed two schools three weeks on account scarlet fever. No expense.

#### HURON COUNTY.

CLARKSFIELD. Population, 1,100. Rules adopted. One meeting. Closed one school two weeks on account of diphtheria. No expenses. One case diphtheria; two cases scarlet fever; one case typhoid fever.

FAIRFIELD. Population, 1,300. Rules adopted. Four meetings. Clerk acts as health officer. Abated two nuisances. Expense, \$18. Two cases, one death typhoid fever; one case measles.

GREENWICH. Population, 600. No organized board.

LYME. Population, 1,000.

No rules. One meeting. Have health officer. Nothing done. Two cases, two deaths diphtheria.

New London. Population, 600. Rules adopted. Two meetings. Have health officer. Examined school houses. Abated one nuisauce. Expense, \$4.50. Two cases typhoid fever.

Norwich. Population, 1,000.

'Nothing done.

PERU. Population not given. Rules adopted. Have health officer. Examined school-houses. No expense.

TOWI.SEND. Population 1,200. Have rules. No meetings. Trustees act as health officers. No expense.

# JACKSON COUNTY

BLOOMFIELD. Population, 1,200. Nothing done.

COVE. Population not given. No rules. No meetings. Abated four nuisances. No expense. Twenty cases, six deaths diphtheria.

FRANKLIN. Population, 800. Have rules. One meeting act as health officers. Expense, \$5.00. Ten cases, three deaths diphtheria; two cases typhoid fever.

JACKSON. Population, 2,000.

Have rules. Five meetings. Closed eleven schools for two weeks on account of diphtheria. Expense, \$35. eight cases, one death diphtheria; three cases, one death typhoid fever, eighty cases, three deaths measles; thirty-one cases whooping cough.

JEFFERSON. Population, 600.

No rules. Five meetings. Have health officer. Closed seven schools two months on account of diphtheria. Twenty cases, five deaths, diphtheria; one case, one death, membranous croup; two cases, one death, typhoid fever.

LIBERTY. Population, 1,500. Rules adopted. Two meetings. Clerk acts as health officer. Closed one school two weeks on account of diphtheria. Expense, \$5.00. Six cases, two deaths, diphtheria; one case scarlet fever.

LICK Population, 1,500

No rules. One meeting. Examined school houses. Expense, \$4.00. Six cases, one death diphtheria.

MADISON. Population, 2,000.

Rules adopted. Two meetings. Clerk acts as health officer. Examined school houses. Closed two schools for three and four weeks on account of diphtheria. Abated two nuisances. Expense, \$29. Pifty-four cases, four deaths diphtheria.

WASHINGTON. Population, 1,600.

No rules. Two meeeings. No health officer. Closed four schools on account diphtheria. Expense \$47.50. Forty-nine cases, ten deaths diphtheria; one case, one death membranous croup; one case, one death typhoid fever; six cases whooping cough.

# JEFFERSON COUNTY.

ISLAND CREEK. Population, 2,400. No rules. No meetings. Examined school houses. Abated one nuisance. No expense. Four cases, one death scarlet fever; two cases of typhoid fever.

STEUBENVILLE. Population not given. No organized board of health. WAYNE. Population, 1,900. Nothing done.

# KNOX COUNTY.

BUTLER. Population, 800. No rules. Three meetings. No health officer. Closed three schools from two to four weeks on account of scarlet fever. Four cases scarlet fever.

HARRISON. Population, 600.

No rules. One meeting. No health officer. Closed five schools for two weeks on account of scarlet fever. No expense.

HOWARD. Population, 1,300.
No rules. Three meetings. No health officer. Examined school houses. Closed six schools for two weeks on account of scarlet fever. Expense, \$10. Ten cases scarlet fever; twelve cases, one death

JACKSON. Population not given.

No organized board.

JEFFERSON. Population, 850. Rules adopted. No meetings. Have no health officer. No expense.

LIBERTY. Population, 1,500,

Rules adopted but not published. Three meetings. Clerk acts as health officer. Closed two schools two or three weeks on account scarlet fever. Abated one nuisance. Expense \$15. Three cases scarlet fever.

MILFORD. Population, 869. No rules. Two meetings. Have health officer. Closed two schools two weeks on account diphtheria. Expense \$6.25. Thirty-one cases diphtheria; two cases, one death, membranous croup; nineteen cases, one death, measles; fifteen cases whooping cough.

MONROE. Population, 1,200. Rules adopted. Have health officer. Closed two schools one week on account diphtheria and scarlet fever. Three cases, one death, diphtheria.

PLEASANT. Population, 1,000.

Nothing done.

#### LAKE COUNTY.

KIRTLAND. Population, 1,000. Rules adopted. Three meetings. Have health officer. Examined school house. Closed three schools on account of measles. Expense \$21.50. Three cases measles.

MADISON. Population, 2,000. Rules adopted. One meeting. Have health officer. No expense.

PERRY. Population, 1,300. Rules adopted. No health officer. Examined school houses. Expense \$5.

# LAWRENCE COUNTY.

DECATUR. Population, 500. Rules adopted. Six meetings, No health officer. Examined school houses. Two nuisances abated. No expense. Two cases, one death, diphtheria; four cases, two deaths, membranous croup.

ROME. Population, 3,000.

Rules adopted. No meetings. Have health officer. Abated one nuisance. Expense \$10. Twelve cases diphtheria; ten cases, two deaths, typhoid fever; four cases, measles.

#### LICKING COUNTY.

BOWLING GREEN. Population, 1,000. Rules adopted. One meeting. acts as health officer. Expense \$22.50. Twenty cases, scarlet fever.

ETNA. Population, 1,400.

Rules adopted. One meeting. Have health officer. Examined school houses, Closed one school for two weeks, on account diptheria. No expense. Three cases diphtheria; two cases, one death, scarlet fever.

HARRISON. Population, 1,600.

No rules. Six meetings. Have health officer. Closed tour schools three or four weeks on account diphtheria and scarlet fever. Expenses \$15. Two cases two deaths, diphtheria; ten cases, one death, scarlet fever.

HARTFORD. Population, 600.

Rules adopted. Three meetings. Have health officer. Examined school houses. Closed five schools one to three weeks on account diphtheria. Expense \$20. Seventeen cases, one death, diphtheria; two cases, two deaths membranous croup; two cases scarlet fever.

HOPEWELL. Population, 900.

Nothing done. Three cases scarlet fever.

JERSEY. Population, 1,750.

Rules adopted. Three meetings. Have health officer. Closed three schools two weeks on account diphtheria. Expense \$15. Nineteen cases, four deaths diphtheria; two cases scarlet fever; one case typhoid fever; twelve cases, measles.

LICKING. Population, 1,111.

Rules adopted. Have health officer. Examined school houses. Closed all schools in township for five weeks on account of diphtheria and scarlet fever. Six cases, three deaths, diphtheria.

MARY ANN. Population, 1,250. No rules. No meetings. Examined school houses. Closed four schools two weeks on account of diphtheria. Expense \$4.50. Ten cases diphtheria; three cases, three deaths, membranous croup; three cases scarlet fever.

NEWARK. Population 1,200.

No rules. Two meetings. Abated one nuisance. Expense \$10. Three cases, one death, diphtheria.

Union. Population not given.

Rules adopted. Twelve meetings. Clerk acts as health officer. Examined school houses. Closed four schools one to four weeks on account diphtheria and scarlet fever. Buried dead animals. Expense \$82.11. Ten cases, four deaths, diphtheria; three cases, three deaths membranous croup; eleven cases, one death, scarlet fever; two cases typhoid

WASHINGTON. Population, 1,000.

Have health officer. Examined school houses. Closed three schools for a week on account scarlet fever. One case, one death, diphtheria; one case membranous croup; six cases scarlet fever; twelve cases, whooping cough.

#### LOGAN COUNTY.

BOKES CREEK. Population, 1,100. No rules. One meeting. Closed one school for two weeks on account of scarlet sever. Expense \$4.50. One case scarlet

JEFFERSON. Population, 2,000. Nothing done; one case of typhoid

LAKE. Population, 1,000.

No rules One meeting. Trustees act as health officers. Closed one school for two weeks on account of diphtheria. Abated one nuisance. Expense \$18. One case of scarlet fever; two cases of typhoid fever.

MIAMI. Population, 1,000.

Rules adopted. Six meetings. Have two health officers. Examined school houses. Closed one school a week on account of scarlet fever. One case, one death, membranous croup; four cases scarlet fever; five cases typhoid fever; four cases measles; twenty-five cases whooping cough.

McArthur. Population, 1,200.

No rules. One meeting. Have health officer. Abated three nuisances. No expense.

RUSH CREEK. Population, not given. Rules adopted. Twelve meetings. Examined school houses. Closed one school one week on account of scarlet fever. Buried dead animals. Expense \$4.00.

RICHLAND. Population, 1,200.
No rules. Two meetings. Clerk acts as health officer. Expense \$10. One case membranous croup.

# LORAIN COUNTY.

CAMDEN. Population, 1,000. Three meetings. Clerk acts as health

officer. Examined school houses. Abated two nuisances. One case scarlet fever Two cases typhoid fever.

CARLISLE. Population, 1,500.

No rules. Four meetings. Have health officer. No expense.

COLUMBIA. Population, 800. Nothing done.

BRIGHTON. Population, 500. Rules adopted. Two meetings. Have Rules adopted. Two meetings. Have health officer. Closed three schools for one to three weeks on account of diph-Expense theria. Abated one nuisauce. \$23. Eight cases, one death, diphtheria.

ELYRIA. Population, 800.

Rules adopted. Twelve meetings. Have health officer. Examined school houses. Abated two nuisances. Expense \$3. Twenty two cases measles.

HENRIETTA. Population, 700.
Rules adopted. Four meetings. Clerk acts as health officer. Closed one school for four weeks on account of scarlet fever. Expense \$10. Five cases scarlet fever.

HUNTINGTON. Population, 500. Nothing done.

PENFIELD. Population, 700.

Rules adopted. No meetings. Have health officer. Expense \$1. Two cases diphtheria

RUSSIA. Population, 550.

Rules adopted. One meeting. Have health officer. One school closed one week on account of diphtheria. No expense.

WELLINGTON. Population, 3,000. Rules adopted. One meeting. Have health officer. Expense \$3.

# LUCAS COUNTY.

ADAMS. Population, 2,000. Clerk acts No rules. One meeting. as health officer. Expense \$10.

JERUSALEM. Population, 1,800.

Rules adopted. One meeting. Examined school houses. Abated three nuisances. Expense \$18.

MONCLOVA. Population, 1,200.

Rules adopted. Two meetings. No health officer. Examined school houses. Buried dead animals, Expense \$10. Two cases typhoid fever.

OREGON. Population, 1,500.

Rules adopted. Three meetings. No health officer. Abated one nuisance. Expense \$40.

PROVIDENCE. Population, 1,500.

Rules adopted. Three meetings. Have health officer. Examined school houses. Closed seven schools from one to four weeks on account diphtheria. Drained swamps. Expense, \$28.30. Twenty-eight cases, five deaths diphtheria.

SPRINGFIELD. Population, 800.
Rules adopted. Two meetings. Clerk acts as health officer. Examined school houses. Closed two schools for a week on account diphtheria. Abated three nuisances. Expense, \$10. Two cases, one death diphtheria; one case, one death membranous croup.

# MADISON COUNTY.

CANAAN. Population, 1,000. Rules adopted. Five meetings. Have health officer. Examined school houses.

Abated five nuisances. Expense, \$53.25. Three cases diphtheria; one case scarlet fever; four cases typhoid fever.

FAIRFIELD. Population, 2,000.

Nothing done.

OAK RUN. Population, 600.

Nothing done.

Union. Population, 1,700. No rules. Abated two nuisances. No expense.

#### MAHONING COUNTY.

BEAVER. Population, 1,000. Rules adopted. Two meetings. Have health officer. Closed three schools for three weeks on account scarlet fever. Abated one nuisance. Expense, \$40. Twenty-two cases, one death scarlet fever.

COITSVILLE. Population not given. Examined school houses. Closed one school one week on account scarlet fever. Expense, \$8.

ELLSWORTH. Population, 700. Rules adopted. One meeting. Closed two schools three or four weeks on account scarlet fever. One case diphtheria; five cases scarlet fever.

GOSHEN. Population not given. Rules adopted. Nothing done. Expense, 45 cents.

JACKSON. Population, 200.

No rules. Closed one school two weeks on account scarlet fever. Two cases scarlet fever.

SMITH. Population, 1,200.

Rules adopted. Three meetings. Have health officer. Abated seven nuisances. Expense, \$10. Two cases typhoid fever.

SPRINGFIELD. Population, 700.

No rules. One meeting. Abated one nuisance. No expense.

Youngstown. Population, 2,250. Rules adopted. Twelve meetings. Trustees act as health officers. Examined school houses. Closed one school two weeks on account scarlet Abated twenty-five nuisances. fever. Three cases diphtheria; four cases scarlet fever.

# MARION COUNTY.

GRAND. Population, 700.

Rules adopted. Five meetings. Examined school houses. Closed one school tour weeks on account diphtheria. Expense, \$25. Nine cases, four deaths diphtheria; three cases, three deaths membranous croup; two cases scarlet fever.

GREEN CAMP. Population, 600. No rules. Two meetings. Clerk acts as health officer. Closed three schools one to three weeks on account diphtheria.

Expense, \$10. Two cases diphtheria; twenty-two cases, one death typhoid fever; seven cases whooping cough,

MONTGOMERY. Population, 400.

Rules adopted. Twelve meetings. Have health officer. Examined school houses. Closed three schoo's two weeks on account diphtheria. Expense, \$75. Ten cases, two deaths diphtheria; two cases, two deaths membranous croup.

Tully. Population, 1,150.

Rules adopted. Four meetings. Have health officer. Examined school houses. Closed two schools two weeks on account diphtheria. Expense, \$15. Thirty-two cases, six deaths diplitheria; one case, one death membranous croup.

Scott. Population, 300. Nothing done. WALDO. Population, 1,000. Nothing done.

# MEDINA COUNTY.

CHATHAM. Population, 1,000. Closed three schools for one and two weeks on account of scarlet fever. Eight cases scarlet fever. Five cases typhoid fever. Fourteen cases whooping cough.

Guilford. Population, 1,100.

Rules adopted. Three meetings. Have health officer. Abated three nuisances. Expense, \$12.00. Five or six cases scarlet fever.

HINCKLEY. Population, 1,200. No rules. Nothing done.

LITCHFIELD. Population, 450.

Have health officer. Examined school houses. Abated tour nuisances. Expense, \$5.00.

LAFAYETTE. Population, 1,150.

Rules adopted. One meeting. Have health officer. Examined school houses. Expense, \$6.00. Three cases diphtheria, one case scarlet fever.

Spencer. Population, not given. Rules adopted. Nothing done.

WADSWORTH. Population, 3,800. Rules adopted. No meetings. No health officer.

YORK. Population, 1,000.

No rules. Two meetings. health officer. Three schools closed two weeks on account of scarlet fever. Expense, \$5.00.

# MEIGS COUNTY.

CHESTER. Population, 1,500. Rules adopted. Four meetings. Closed one school three weeks on account of diphtheria. Eight cases, two deaths diphtheria. No expense.

COLUMBIA. Population, 1,500. Rules adopted. One meeting. Have health officer. Nothing done.

LETART. Population, 1,500.

Rules adopted. One meeting. Have health officer. One nuisance abated. Expense, \$6.00. Two cases scarlet fever.

SALISBURY. Population, 800.

No rules. No meetings. Examined. No expense.

#### MERCER COUNTY.

CENTER. Population, 1,200. Rules adopted. No meetings. Nothing done.

Franklin. Population, 1,400.

Rules adopted. Nothing done. HOPEWELL. Population, not given.

Rules adopted. One meeting. Have health officer.

MARION. Population, 2.500. Rules adopted. Two meetings. Expense, \$15.00. Three cases, one death diphtheria.

#### MIAMI COUNTY.

CONCORD. Population, 8,000. No rules. Four meetings. Expense, **₹4**0.00.

MONROR. Population, 2,000.

No rules. Twelve meetings. Have health officer. Expense, \$75.00. Two cases typhoid fever.

Newberry. Population, not given. No rules. Abated twelve nuisances. Expense, \$27.18. Six cases diphtheria. Five cases scarlet fever.

NEWTON. Population, 2,000.

Rules adopted. Four meetings. Clerk acts as health officer. Examined school houses. Closed one school two weeks on account of scarlet fever and diphtheria. Expense, \$20.00. Five cases, two deaths diphtheria. Two cases scarlet fever. Five cases typhoid fever.

SPRING CREEK. Population, 2,000. Ru'es adopted. Four meetings. Have health officer. Closed one school two weeks on account of diphtheria. Abated ten nuisances. Expense, \$62.00. Three cases diphtheria.

STAUNTON. Population, not given. No rules. Twelve meetings. Have health officer. Closed two schools about ten days on account of diphtheria. Abated one nuisance. Expense, \$4.50. Five cases diphtheria. One case scarlet

Union. Population, not given. Rules adopted. Two meetings. Have three health officers. Examined school houses. Closed five schools ten days on account of diphtheria. Seven cases,

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five deaths diphtheria. Two cases scarlet fever. Five cases typhoid fever, three deaths.

WASHINGTON. Population, 1,500. Rules adopted. Twenty-five meetings. Have health officer. Examined school houses. Closed one school one week on account of diphtheria. Abated six nuisances. Expense, \$50.00. Six cases diphtheria.

# MONROE COUNTY.

ADAMS. Population, 900.

Rules adopted. Two meetings. Have healthofficer. Examined school houses. No expense. Six cases diphtheria. Fourteen cases four deaths typhoid fever.

Benton. Population, 1,000.

Rules adopted. One meeting. No health officer. Expense, \$60.

GREEN. Population, 1,500.

Rules adopted. Six meetings. Have health officer. Expense, \$10. Twelve cases scarlet fever.

LER. Population, 1,500.

Rules adopted. One meeting. No health officer. Closed two schools two weeks on account diphtheria. Expense \$4.50. Fifteen cases four deaths diththeria. One case one death membranous croup; five cases, two deaths typhoid lever.

Ohio. Population, 2,000.

Rules adopted. Two meetings. Expense, \$27.65. One case, one death diphtheria; six cases five deaths typhoid fever.

SUMMIT. Population, 350.

Rules adopted. Eight meetings. Health officer. Closed six schools two months an account small-pox. Expense, \$60. Fourteen cases one death typhoid fever.

SWITZERLAND. Population, 1,300. No rules. One meeting. Nothing done.

# MONTGOMERY COUNTY.

BUTLER. Population, 2,500.

Rules adopted. Twelve meetings. Examined school-houses. Abated one nuisance. Expense, \$50. Eight cases two deaths.

CLAY. Population, 2,000.

Rules Two adopted. meetings. Closed two schools for two and four weeks on account diphtheria. Expense \$30. Twelve cases diphtheria; two cases two deaths membranous croup; four cases scarlet fever, twelve cases five deaths typhoid fever.

GERMAN. Population, 3,200.

Rules adopted. Four meetings Have health officer. Abated two nuisances. | health officer. Nothing done.

Expense, \$24. Ten cases, two deaths diphtheria; one case typhoid fever.

HARRISON. Population, 3,000.

Rules adopted. Six meetings. Have health officer. Axamined schools houses. Abated several nuisances. Expense, \$2. Four cases, two deaths diphtheria; one case one death membranous croup; two cases scarlet fever three cases typhoid fever.

JACKSON. Population, 1,575.
Rules adopted. Twelve meetings. Examined school houses. Four nuisances abated. Fifteen cases four cases ediphtheria; ten cases two deaths typhoid fever.

MADISON. Population, not given.

Rules adopted. Four meetings. Clerk acts as health officer. Examined school houses. Closed four schools from two to four weeks on account diphtheria. Expense, \$58. Fifteen cases, three deaths diphheria.

MAD RIVER. Population, 2,500.

Rules adopted. Abated two nuisances, No expense.

Perry. Population, 2,000.

Rules adopted. Two meetings. Abated one nuisance. Expense, \$6.00.

WAYNE. Population, 1,250.

Rules adopted. Two meetings. amined school houses. Closed school one week on account diphtheria. Expense, \$20. Twenty cases, four deaths diphtheria.

# MORGAN COUNTY.

BLOOM. Population, 900. No rules. One meeting. Have health

officer. Expense, \$4.25.

CENTER. Population, 1,200.
No rules. One meeting. Clerk acts as health officer. Expense, -3.

DEERFIELD. Population 1,000

Rules adopted. One meeting. Abated one nuisance. Expense, \$6.00 Two cases diphtheria; one case typhoid fever.

Homer. Population, 1,600.

No rules. One meeting. Have health officer. Examined school houses. No expense.

Malto. Population not given. Rules adopted. Two meetings. Examined school houses. Abated one nuisance, Expense, \$1.00. Physicians do not report contagious diseases.

MANCHESTER. Population, 850.
Rules adopted. Two meetings. Have health officer. Closed one school two weeks on account scarlet fever. Two nuisances abated. Expense, \$5.00. Seven cases scarlet fever.

MEIGSVILLE. Population, 1,000.
Rules adopted. One meeting. Have

YORK. Population, 1,200. Rules adopted. Two meetings. Have health officer. Examined school houses. Expense, \$3.00. Three cases scarlet fever.

#### MORROW COUNTY.

BENNINGTON. Population, not given. No rules. No meeting. Have bealth officer. No expense.

Canaan. Population, 2,000.

No rules. No meetings. Closed one school three weeks on account diphtheria. No expense. Five cases diphtheria.

CONGRESS. Population, 1,200. No rules. One meeting. Have health officer. Expense, \$3. Seven cases, two deaths diphtheria.

GILEAD. Population, 3,000. No organized board.

# MUSKINGUM COUNTY.

ADAMS. Population, 800.

Rules adopted. Have health officer. Closed one school for two weeks on account of scarlet fever. No expense. Eight cases of scarlet fever and two cases of typhoid fever.

CLAY. Population, 400.

Rules adopted. One meeting. health officer. No expense. No contagious diseases.

FALLS. Population, 1,800.

Rules adopted. Twelve meetings. Have health officer. Closed two schools for one or two weeks on account of scarlet fever. Abated one nuisance. Expense, \$30. Eight cases of scarlet fever.

HARRISON. Population, not given. Rules adopted One meeting. Have health officer. Nothing done.

Madison. Population, 1,200.

Rules adopted. Four meetings. Have health officer. Examined school houses. Closed six schools on account of scarlet fever. Abated six nuisances. Expense, \$100. One case of diphtheria; one case and one death of membranous croup; twenty-one cases of scarlet fever; two cases of measles and five cases of whooping cough.

MUSKINGUM. Population, 1,200.

Rules adopted. No health officer. Closed one school for two weeks on account of scarlet fever. No expense.

Perry. Population, 1,200.

No rules One meeting. No health offirer. Expense, \$4.

RICH HILL. Population, not given. Nothing done.

Union. Population, 600.

No rules. One meeting. Have health officer. Expense, \$1.50

WAYNE. Population, not given. No organized board.

#### NOBLE COUNTY.

BEAVER. Population, not given. No rules. One meeting. Expense, \$6. One case and one death of diphtheria.

ELK. Population, 1,000. Rules adopted. No meetings. Have health officer. No expense.

SENECA. Population, 800.

Nothing done. Have health officer.

STOCK. Population, 2,500

No rules. Have health officer. Expense, \$46.25. One case of diphtheria and fifteen cases of typhoid fever.

WAYNE. Population, 600.

Rules adopted. Five meetings. Have health officer. Examined school houses. Closed four schools one to three weeks on account of diphtheria. Expense, \$50. Ten cases and five deaths of diphthe. ia.

# OTTAWA COUNTY.

BAY. Population, 650. No rules. One meeting. Have health officer. Expense, \$4.50.

BENTON. Population, 3,000.

Rules adopted. Four meetings. Have health officer. Three cases of scarlet fever.

CARROLL Population, not given. Rules adopted. Twelve meetings. Have health officer. Examined school houses. Expense, \$35.

CATAWBA ISLAND. Population, 700. Rules adopted. Three meetings. Examined school houses. Expense, \$13.50.

DANBURY. Population, 2,000.

Rules adopted. Six meetings. Clerk acts as health officer. Examined school houses. Closed two schools for two weeks on account of measles. Abated four nuisances. Expense, \$13. Nine cases and two deaths of typhoid fever and forty cases of measles.

ERIE. Population, 480.

Nothing done.

PUT-IN BAY. Population, 1,000. Rules adopted. No meeting. Clerk acts as health officer. Abated one nuisance. No expense.

#### PAULDING COUNTY.

AUGLAIZE. Population, 1,000. No rules. No meetings. No health officer. Closed three schools for two weeks on account of diphtheria. No expense. Five cases and two deaths of diphtheria.

BENTON. Population, not given. No rules. One meeting. No health officer. Closed one school for two weeks on account of diphtheria. Six cases and three deaths of diphtheria.

Crane. Population, 2,000.

No rules. Four meetings. health officer. Examined school Have Examined school houses. Closed two schools for two and four weeks on account of diphtheria. Expense, \$15. Two cases and one death of diphtheria; two cases of membranous croup; three cases of typhoid fever and five cases of meslaes.

EMERALD. Population, 800.

Rules adopted. Three meetings. Expense, \$6. Two cases, one death, diphtheria.

JACKSON. Population, 500.

No rules. No meetings. Examined school houses. Two nuisances abated. Expense, \$8.50.

LATTY. Population, 1,500.

Nothing done.

PAULDING. Population not given.

Rules adopted. Monthly meetings. Trustees act as health officer. Examined school houses. Closed one school two weeks on account diphtheria. Abated one nuisance. Expense, \$1. cases diphtheria.

Washington. Population, 2,500. Nothing done.

#### PERRY COUNTY.

CLAYTON. Population, 1,600. No rules. One meeting. No health officer. Abated one nuisance. Expense, 5. Six cases typhoid fever. One death whooping cough.

COAL. Population, 1,000.

Rules adopted. Eight meetings. Have health officer. Examined school houses. One school closed a month on account scarlet fever. Abated seven nuisances. Expense, \$113.50. One case, one death, diphtheria; nine cases, one death, scarlet feve r.

HARRISON. Population, 1,350. Rules adopted. Trustees act as health officers. No expenses.

JACKSON. Population not given. No rules. Two meetings. Have health Examined school houses. officer. Abated two nuisances. Expense, \$40. Twenty-seven cases scarlet fever; eighteen cases typhoid fever.

Madison. Population not given. Rules adopted. One meeting. Closed one school one week on account scarlet fever. Abated one nuisance. Expense, \$10. One case scarlet fever.

MONROE. Population, 2,500. Three meetings. No rules. Two cases, two deaths, diphtheria.

PLEASANT. Population, 1,300.
No rules. One meeting. Have health
officer. Closed one school two weeks on

account scarlet fever and whooping cough. Abated nuisance. Expense, \$6. Four cases scarlet fever.

PIKE. Population, 2,000.

Rules adopted. Twenty-five meetings. Have health officer. Four nuisances abated. Expense, \$87.95. Seven cases, four deaths, diphtheria; twenty-three cases, one death, scarlet fever; twelve cases, three deaths, measles.

SALT LICK. Population, 2,000. Two meetings. Nothing done.

#### PICKAWAY COUNTY.

CIRCLEVILLE. Population, 8,500. Nothing done.

DARBY. Population not given.
Rules adopted. Two meetings. Have
health officer. Abated two nuisances.
Expense, \$25. Two cases, two deaths, diphtheria; one case scarlet fever; forty-three cases, two deaths, typhoid fever.

DEER CREEK. Population, 2,000.
Rules adopted. One meeting. Have health officer. Examined school houses. Closed nine schools a month on account diphtheria. Abated one nuisance. Expense, \$115.53. One hundred and twentyfive cases, 13 deaths, diphtheria.

Madison. Population, 1,000.

No rules. One meeting. Examined school houses. Closed one school one week on account of diphtheria.

PERRY. Population, 2,300. No rules. Two meetings. No health officer. Closed schools one week on account diphtheria. Expense, \$6. Six cases diphtheria.

PICKAWAY. Population, 1,400.

No rules. No meetings. Have health officer. No expenses.

SALT CREEK. Population, 1,400. Rules adopted. One meeting. Trustees act as health officers. Expense, Two cases, one death, typhoid **\$**25. fever.

Scioto. Population, 2,300.

Rules adopted. Twelve meetings. Three health officers. Examined school houses. Closed one school two weeks on account diphtheria. Expense, \$34.50. Ten cases diphtheria, eleven cases scarlet fever, one case typhoid fever.

WAYNE. Population, 700.

No rules. One meeting. No health officer. No expense.

Benton. Population, 1,500.

Nothing done.

MARION. Population, 600. No rules. One meeting. Have health officer. Abated one nuisance. Expense, \$18. One case, one death, diphtheria; one case scarlet fever.

MIFFLIN. Population, 1,000. Nothing done. Expense, \$5.

cases, one death, diphtheria; one case measles.

PEE PEE. Population, 600.

No rules. Eleven meetings. e health officer. Two cases diphtheria, one case scarlet fever.

SCIOTO, Population, 1,200. No rules. One meeting. Have health officer. Abated one nuisance. Expense, \$3. One hundred and twenty-five cases, two deaths, diphtheria; four cases, four deaths, membranous croup; forty cases, two deaths, typhoid fever.

# PREBLE COUNTY.

DIXON. Population, 1,000. Nothing done. Three cases, one death, scarlet fever; six cases, two deaths, typhoid fever.

ISRAEL. Population not given. Nothing done.

Jackson. Population, 800.

No rules. Twelve meetings. Nο health officer. Examined school houses. No expenses. Seven cases, four deaths, diphtheria; fifteen cases, one death, typhoid fever.

JEFFERSON. Population, 1,000. Rules adopted. One meeting. No health officer.

LANIER. Population, not given. Rules adopted. Twelve meetings. Have health officer. Examined school houses. Abated two nuisances. Expense, \$19. Three cases, three deaths, diphtheria; one case, one death, membranous croup; five cases typhoid fever; three cases whooping cough.

WASHINGTON. Population, 1,800. No rules. One meeting. Have health officer. Expense, \$4.50.

# PORTAGE COUNTY.

ATWATER. Population, 1,400. Rules adopted. Four meetings. Have health officer. Examined school houses. No expense. Four cases scarlet fever.

CHARLESTOWN. Population, 700. Rules adopted. One meeting. Abated two nuisances.

DEERFIELD. Population, 1,000. Nothing done.

EDINBURG. Population, 750.
No rules. Twelve meetings. Have health officer. Expense, \$10. One case scarlet fever; two cases of measles; one case whooping cough.

HIRAM. Population, 875.

No rules. No meetings. Abated one nuisance.

NELSON. Population, 850. Nothing done.

PALMYRA. Population, 1,000. Nothing done. One case diphtheria; nineteen cases measles.

Paris. Population, 180. Nothing done.

RAVENNA. Population, not given. Rules adopted. One meeting. Have health officer. Abated one nuisance. Expense, \$10.50. One case scarlet fever, one case typhoid fever.

STREETSBORO. Population, 800. Examined school houses. No expense.

SUFFIELD. Population, not given. Two meetings. Have health officer. Examined school houses. Abated one nuisance. Expense, \$4.50. Four cases scarlet fever; one case typhoid fever.

#### PUTNAM COUNTY.

BLANCHARD. Population, 1,500. • Rules adopted. Have health officer. No expense.

JACKSON. Population, 4,000.

Rules adopted. No meetings. Have health officer. Abated one nuisance. Expense, \$13.50.

LIBERTY. Population, 1,575. No rules, Twelve meetings. Examined school houses.

OTTAWA. Population, not given. No organized board of health.

PERRY. Population, 1,500. Nothing done.

RILEY. Population, 1,050.

Nothing done. Union. Population, 1,850. Rules adopted. Nothing done.

# RICHLAND COUNTY.

BLOOMING GROVE. Population, 1,000. Rules adopted. One meeting. Expense, \$50. Fourteen cases, two deaths diphtheria; one case, one death, membranous croup.

BUTLER, Population, 700.

Rules adopted. One meeting. Have health officer. Closed school one week on account of scarlet fever. Expense, \$4.50. Three cases scarlet fever.

Cass. Population, 1,900. No rules. Twelve meetings, Examined school houses.

MADISON. Population, 3,000.

Eighteen meetings. Trustees act as health officers. Examined school houses. Closed one school two weeks on account diphtheria. Twenty nuisances abated. Expense, \$80. Forty cases, two deaths. diphther:a; ten cases, three deaths, scarlet fever; nine typhoid fever.

Monroe. Population, 1,500.

Rules adopted. Six meetings. Have health officer. Expense, \$208.29. Six cases, four deaths diphtheria. cases typhoid fever.

PLYMOUTH. Population, not given. Nothing done.

SANDUSKY. Population, 325.

Rules adopted. One meeting. No expense. One case, one death typhoid

SHARON. Population, not given. Rules adopted. Twelve meetings. Clerk acts as health officer. One nuisance abated. No expense. One case, one death diphtheria.

Washington. Population, 1,000.

No rules. One meeting. Clerk acts as health officer. Closed one school two days on account diphtheria. One case scarlet fever, two cases, two deaths typhoid fever.

WELLER. Population, 1,100.

Rules adopted. One meeting. Have health officer. Expense, \$60.50. One case diphtheria, three cases scarlet fever.

#### ROSS COUNTY.

BUCKSKIN. Population, 2,000. Rules adopted. Six meetings. Have health officer. Closed two schools one week on account scarlet fever. Expense, \$10. Two cases membranous croup; six cases, one death scarlet fever; one case typhoid fever.

COLERAIN. Population, 1,700. No rules. One meeting. Nothing done.

DEERFIELD. Population, 1,000.

No rules. Nine meetings. health officer. Examined school houses. Abated several nuisances. Expense, \$75. Four cases diphtheria; forty-two cases measles.

Franklin. Population, 1,200. No rules. No meetings. Closed two schools for two and three weeks on account measles. Expense, \$2.00.

LIBERTY. Population, 1,600.

meetings. adopted. Four Closed one school on account scarlet Expense, \$31.50. Two cases, one death diphtheria; two cases scarlet ſever.

Paint. Population, 1,600.

Closed one school two weeks on account diphtheria. Three cases diphtheria.

PAXTON. Population, 3,000. Nothing done.

Union. Population, 1,900.

No rules. Eight meetings. Have health officer. No expense. One death typhoid fever.

#### SCIOTO COUNTY.

CLAY. Population, 2,100.

Rules adopted. Four meetings. Have health officer. Closed two schools ten to fifteen days on account of diphtheria. Abated eight nuisances. Expense, \$135.26. Thirty cases, six deaths, diphtheria.

GREEN. Population, 1,200.

Rules adopted. Closed three schools one to three weeks on account of diphtheria. Expense, \$50.50. Twentyeight cases, two deaths, diphtheria.

JEFFERSON. Population, 1,500. No rules. One meeting. Have health officer. Fifteen cases, three deaths, diphtheria; three cases, two deaths, typhoid

MORGAN. Population, 1,500.

Rules adopted. Have health officer. No expense. Four cases diphtheria; one case membranous croup; seven cases typhoid fever; twenty cases measles.

NILE. Population, 2,100.

Rules adopted. Four meetings. Closed two schools nine days on account of diphtheria. Expense, \$85.05. four cases, three deaths, diphtheria.

PORTER. Population, 2,000.

Rules adopted. Four meetings. Closed three schools on account of diphtheria. Expense, \$35.00. Fifty-five cases, eight deaths, diphtheria.

Rush. Population, 800.

Rules adopted. One meeting. No health officer. Closed two schools two weeks on account of diphtheria.

Valley. Population, 1,200.

Rules adopted. Four meetings. Have health officer. Closed one school three weeks on account of diphtheria. Abated forty-eight nuisances. Expense. \$25. Sixty-three cases, three deaths, diphtheria; eight cases scarlet fever.

VERNON. Population, 700. No organized board.

Washington. Population, 1,100. No rules. Four meetings. No health officer. Closed two schools two weeks on account of diphtheria. Expense, \$20.50. Eight cases, three deaths diphtheria; one case, one death membranous croup; two cases, one death typhoid fever; three cases measles, four cases whooping cough.

# SENECA COUNTY.

ADAMS. Population, 1,200. No rules. No meetings. Examined school houses. No expense.

BIG SPRING. Population, 1,964.

Rules adopted. One meeting. Two cases diphtheria; four cases scarlet fever.

REED. Population, 800. Nothing done.

THOMPSON. Population, 1,600.
No rules. Three meetings. Closed two schools one week on account of measles. Four cases, one death diphtheria; one case scarlet fever; one case typhoid fever.

VENICE. Population, 1,600.
Rules adopted. One meeting. Have health officer. No expense.

#### SHELBY COUNTY.

McLean. Population, 400. No rules. Four meetings. No health officer. Examined school houses. Closed one school six days on account of diphtheria. Expense, \$61. Twenty-four cases, four deaths diphtheria.

ORANGE. Population, 600.

Rules adopted. Two meetings. Have health officer. Examined school houses. Closed one school six days on account of diphtheria. Expense, \$15. Seven cases diphtheria.

PERRY. Population, 1,500. Nothing done.

Van Buren. Population, 1,000.

Rules adopted. One meeting. Have health officer. Fourteen cases, four deaths diphtheria; two cases, one death membranous croup; sixteen cases, one death typhoid fever; one hundred and twenty-eight cases whooping cough.

# STARK COUNTY.

CANTON. Population, 2,500.

No rules. Eleven meetings. Have health officer. Closed two schools four or five days on account of diphtheria and scarlet fever. Abated six nuisances. Expense, \$271.50. Four cases, one death diphtheria; one case, one death membranous croup; two cases scarlet fever.

JACKSON. Population, 2,500.

Rules adopted. Four meetings, Have health officer. Expense, \$25. Six cases, one death diphtheria; one case typhoid fever; one case, one death whooping

LAKE. Population, 2,300. Nothing done. Two cases diphtheria.

LEXINGTON. Population not given. Rules adopted. One meeting. Have health officer. Closed one school two weeks on account of diphtheria. Abated three or four nuisances. Expense, \$195. Six cases, three deaths diphtheria; one case typhoid fever.

OSNABURG. Population, 1,500. Rules adopted. Four meetings. Have health officer. Expense, \$20. One case, one death membranous croup; one case, one death typhoid fever.

PIKE. Population, 2,000. No rules. One meeting. Have health officer. Expense, \$15. One case typhoid fever.

SANDY. Population, 800.

Rules adopted. One meeting. Have health officer. Examined school houses. Expense, \$16.50. Four cases typhoid fever.

SUGAR CREEK. Population, 1,100. Rules adopted. Four meetings. Have health officer. Examined school houses. No expense. Three cases membranous croup; nine cases scarlet fever; five cases typhoid fever; forty cases measles twenty-eight cases whooping cough.

WASHINGTON. Population, 1,200. No rules. Three meetings. Have health officer. Expense, \$25. One case, one death diphtheria.

# SUMMIT COUNTY.

Boston. Population not given. Rules adopted. Two meetings. No health officer. Examined school houses. Two cases diphtheria.

HUDSON. Population, 1,800. Rules adopted. Twelve meetings. Ex-

amined school houses. No expense.

NORTHAMPTON. Population, 600. Nothing done. Two cases typhoid fever and one case measles.

NORTHFIELD. Population, 1,000. Rules adopted. Nothing done. One case scarlet fever. No expense.

NORTON. Population not given. Rules adopted. Two meetings. health officer. Closed three schools from two to six weeks on account of diph-theria. Expense \$40. Thirty cases and two deaths of diphtheria; one case and one death of membranous croup.

PORTAGE. Population, 3,000.

No rules. Seven meetings. health officer. Examined one Have Examined one school house. Abated two nuisances. Expense \$75.10. Two cases diphtheria.

RICHFIELD. Population, 950. Rules adopted. No meetings. No health officer. Examined school houses. Closed one school two weeks on account of diphtheria. Four cases typhoid fever. No expense.

SPRINGFIELD. Population, 2,000. No rules. Two meetings. Have health officer. Abated one nuisance. Expense, \$10.50. Two cases scarlet fever.

# TRUMBULL COUNTY.

BRACEVILLE. Population, 900. Nothing done.

BRISTOL. Population, 1,400. Rules adopted. Three meetings. Have health officer. Examined school houses.

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Closed one school one week on account of diphtheria. Expense, \$50. One case, one death, diphtheria.

BROOKFIELD. Population not given. No rules. Two meetings. Clerk acts as health officer. Abated one nuisance. Expense, \$5.

CHAMPION. Population, 1,300. Nothing done.

FARMINGTON. Population, 1,000.

No rules. Two meetings. Clerk acts s health officer. Examined school houses. Abated three nuisances. Expense, \$5.

FOWLER. Population, 800. Rules adopted. One meeting. Noth-

ing done. LIBERTY. Population not given.

Rules adopted. Four meetings. Have health officer. Abated two nuisances. Expense, \$100. Two cases scarlet fever; three cases of typhoid fever.

LORDSTOWN. Population, 800. No rules. One meeting. One school closed four weeks on account of scarlet fever. One case of scarlet fever.

MECCA. Population, 450.

Rules adopted. One meeting. Have health officer. Examined school houses.

NEWTON. Population, 700.

No rules. One meeting. No health officer. Nothing done.

WARREN. Population not given, Rules adopted. Five meetings. No health officer. Examined school houses. Abated two nuisances. Expense, \$8.

# TUSCARAWAS COUNTY.

AUBURN. Population, 375. Nothing done.

FAIRFIELD. Population, 1,500. No rules. Two meetings. Trustees act as health officer. Examined school houses. No expense.

Franklin. Population, 600. Nothing done. Two cases of typhoid fever; fifteen cases measles; twenty cases of whooping. cough

Goshen. Population, 2,000.

Rules adopted. Twelve meetings. ave health officer. Abated fifteen nui-Have health officer. sances. Expense, \$52.

lefferson. Population not given. Nothing done. Have health officer.

LAWRENCE. Population, 2,000.

Rules adopted. Twelve meetings. Nothing done. Expense, \$5.

LILL. Population, 4,000. No rules. Three meetings. Closed one school two weeks on account of scarlet fever. Expense \$10.

SALEM. Population not given. No rules. No meeting. Have health officer Closed the schools five weeks on account of diphtheria. No expense. Seventeen cases, one death of diptheria, three cases of typhoid fever.

WARWICK. Population, 1,500.

No rules. One meeting. Clerk acts as health officer. Expense, \$20. Ten cases one death, diphtheria; three cases, three deaths, membranous croup; six cases of scarlet fever; four cases, measles; twenty-one cases whooping cough.

WAYNE. Population not given. Rules adopted. Have health officer. Closed one school two weeks on account diphtheria. Fifteen cases, two deaths, diphtheria.

#### UNION COUNTY.

CLAIBORNE. Population, 3,000. No rules. One meeting. Abated one nuisance. Expense, \$14.35. Three cases diphtheria. One death, scarlet fever.

DOVER. Population, 1,100.

No rules. One meeting. No health officer. Three cases, scarlet fever; six cases, one death typhoid fever.

JACKSON. Population, 1,000.

No rules. Twelve meetings. Have health officer. Abated one nuisance. Expense, \$6. Five cases, one death, diphtheria; one case, one death, membranous croup.

JEROME. Population, 1,400.
Rules adopted. Four meetings. Clerk acts as health officer. Expense, \$15.75. Ten cases scarlet fever; three cases typhoid fever; three cases measles.

Union. Population, 2,675.

No rules. Have health officer. Closed three schools about two weeks on account scarlet fever and diphtheria. Expense, \$15.00. Two cases, two deaths, membranous croup; two cases scarlet fever; two cases typhoid fever.

YORK. Population, 1,600. Nothing done.

# VAN WERT COUNTY.

JENNINGS. Population, 2,000. Rules adopted. Three meetings. No health officer. Closed one school two weeks on account diphtheria. Expense, \$10.00. Four cases, two deaths, diphtheria.

LIBERTY, Population, 400. Rules adopted. Eight meetings. Have health officer. Expense, \$25.00.

WASHINGTON. Population, 2,500. No rules. Six meetings. Have health Examined school houses. officer. Closed three schools two weeks on account diphtheria. Abated four nuisances. Expense, \$26.50. Eleven cases diphtheria; five cases, one death, typhoid fever.

#### VINTON COUNTY.

Brown. Population, not given. No rules. One meeting. No health officer. Abated one nuisance. Expense, \$6.00. Seven cases diphtheria; ten cases, three deaths, typhoid fever.

CLINTON. Population, 2,000. No rules. Four meetings. Examined school houses. Abated one nuisance. Expense, \$5.00. Four cases diphtheria; one case, one death, membranous croup; two cases scarlet fever; one case typhoid fever; ten cases whooping cough.

EAGLE. Population, 1,000. Rules adopted. Nothing done. ELK. Population, 2,500. Nothing done.

HARRISON. Population, not given. No rules. Two meetings. Have health officer. Closed eight schools two weeks on account diphtheria. Expense, \$31.50. Four cases diphtheria; one case scarlet fever.

ACKSON. Population, 1,000.

Rules adopted. One meeting. Clerk acts as health officer. Expense, \$7.50. Two cases, two deaths, membranous croup; one death, whooping cough.

RICHLAND. Population, 100.

No rules. No meetings. Closed three schools three weeks on account diphtheria in another township. No expense.

VINTON. Population, 1,500.

adopted. Four meetings. Clerk acts as health officer. Closed three schools two to four weeks on account diphtheria. Abated four Expense, \$30.00. Twenty nuisances. cases, five deaths, diphtheria; six cases, one death, membranous croup; six cases typhoid fever; thirty-five cases whooping cough.

WILKESVILLE. Population, 2,000. No rules. Two meetings. Have health officer. Closed three schools ten days on account diphtheria. Abated two nuisances. Sixteen cases, four deaths, diphtheria; one case, one death, membranous croup; one case typhoid fever.

#### WARREN COUNTY.

CLEAR CREEK. Population, 2,900. Rules adopted. Two meetings. No health officer. Closed three schools two and four weeks on account diphtheria.

HAMILTON. Population, 2,500. Rules adopted. Twelve meetings. No health officer. Closed one school two weeks on account diphtheria. cases diphtheria.

HARLEM. Population, not given. No rules. One meeting. No health

officer. Closed one school two weeks on account diphtheria. No expense. One case diphtheria.

MASSIE. Population, 800. Rules adopted. One meeting. Have health officer. Nothing done.

SALEM. Population, not given. Rules adopted. Clerk acts as health officer. Nothing done.

WASHINGTON. Population, 1,250. No rules. No meetings. No health officer. Closed one school on account diphtheria. Abated one nuisance. Expense, \$5.00.

# WASHINGTON COUNTY.

ADAMS. Population, 1,200. No rules. No meetings. No health officer. No expense.

AURELIUS. Population, 1,200. No rules. Six meetings. Nothing

DUNHAM. Population, 1,200. No rules. Nothing done.

GRAND VIEW. Population, 3,000 Rules adopted. Four meetings. Examined school houses. Abated one nuisance. Two cases, two deaths diphtheria.

LIBERTY. Population, 600.
No rules. No meetings. Closed one school one week on account measles. No expense. Physicians do not report.

LUDLOW. Population, not given. Nothing done.

MARIETTA. Population, not given. Rules adopted. Examined school houses. No expense.

MUSKINGUM. Population, 1,300. No rules. Have health officer. Expense, \$20.

WARREN. Population not given. Nothing done. Seven cases, one death typhoid fever.

WATERFORD. Population, 1,600. No organization as a board of health. Watertown. Population, 1,600.

Rules adopted. No meetings. health officer. No expense.

#### WAYNE COUNTY.

CHESTER. Population, 1,800. Rules adopted. Four meetings. Have health officer. Examined school houses. Expense, \$166.15.

CHIPPEWA. Population, 3,000. Rules adopted. One meeting. Have health officer. Examined school houses. No expense. One case scarlet fever, one case, one death typhoid fever.

CLINTON. Population, 1,300.
Rules adopted. Two meetings. Expense, \$10.

EAST UNION. Population not given. No rules. Twelve meetings. No health officer. Examined school houses. Five cases, one death typhoid fever; fifty cases whooping cough.

FRANKLIN. Population, 1,400.
Rules adopted. Two meetings. Have health officer. Closed one school one week on account measles. Expense, \$5.00. Six cases measles.

PAINT. Population, 2,000. Rules adopted. One meeting. health officer. Expense, \$2.00. case diphtheria.

LAIN. Population, 1,800. Rules adopted. Two meetings. Have health officer. Expense, \$75.

WOOSTER. Population not given. No rules. Nothing done. Ten cases, two deaths typhoid fever.

#### WILLIAMS COUNTY.

BRIDGEWATER. Population, 1,000. No rules. No meetings. No health officer. Examined school houses. No expense.

CENTER. Population, 1,000.
No rules. Nine meetings. No health officer. Closed school two weeks on account diphtheria. Abated two nuisances. No expense. One case diphtheria; two cases scarlet fever; two deaths typhoid

FLORENCE. Population not given. Rules adopted. Nothing done. SPRINGFIELD. Population, 1,800. Rules adopted. Have health officer. One case diphtheria. No expense.

#### WOOD COUNTY.

Henry. Population, 7,000. Rules adopted. No meetings. No health officer. Buried dead animals. No expense.

LIBERTY. Population, 3,000.

No rules. Three meetings. Have no health officer. Closed three schools four weeks on account of diphtheria. Abated several nuisances. Expense, \$25. Four cases, one death, diphtheria.

MILTON. Population, 2,000. Rules adopted. One meeting. Clerk acts as health officer. Closed one school one week on account of diphtheria. Buried dead animals. Expense, \$1. Two cases diphtheria; one case, one death, membranous croup; one case scarlet fever; seven cases, two deaths, typhoid fever.

MONTGOMERY. Population, 1897. Seven meetings. Trustees act as health officer. Expense, \$30. Six cases, one death, diphtheria; one case, one death, membranous croup; two cases scarlet fever; five cases typhoid fever.

PERRYSBURG. Population, 2,500. Rules adopted. Ten meetings. health officer. Abated three nuisances. Expense, \$4.50.

PORTAGE. Population not given.

No rules. Twelve meetings. No health officer. Closed two schools two weeks on account of scarlet fever. No expense. One case, one death, diphtheria; two cases scarlet fever.

Ross. Population, 600.

Rules adopted. Three meetings. No health officer. Examined school houses. No expense.

Washington. Population, 1,000. One meeting. Have no health officer. Examined school houses. No expense. Three cases, scarlet fever; eleven cases

WEBSTER. Population, 1,575. Nothing done.

WESTON. Population, 1,400.

Rules adopted. One meeting. Clerk acts as health officer. Abated one nuisance. Expense \$10.

# WYANDOT COUNTY.

ANTRIM. Population, 1,700. Nothing done.

CRANE. Population, 1,400. Rules adopted. Twelve meetings. Have health officer. Expense, \$29.26. Two cases, diphtheria; one case, scarlet

JACKSON. Population, 2,000.

Rules adopted. Two meetings. No health officer. Examined school houses. Closed two schools two weeks on account of scarlet fever. Expense, \$10. Four cases, diphtheria; five cases scarlet fever; four cases, one death, typhoid fever. No cases whooping cough.

TYMOCHTEE. Population, 2,000. Rules adopted. Three meetings. Clerk acts as health officer. Four nuisances abated. Expense, \$38.59. One case, scarlet fever; one case, typhoid fever.

Sycamore. Population, 1,000. Rules adopted. One meeting. Have no health officer. Expense, \$30.

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OF THE

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January 1, 1897.

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Yale Observatory, Report of, 1895-6

# CIRCULAR OF STATE BOARDS OF HEALTH.

#### Connecticut-

Prevention and Restriction of Typhoid Fever.

Indiana- ·

Care and Management of Dairies.

Rules of the State Board of Health.

Protection of Fruit from Dust Pollution.

# Ontario-

Amendments to Public Health Act.

Rules for Checking Spread of Infectious Diseases.

# Pennsylvania-

Prevention of Blindness.

List of Boards of Health.

# Wisconsin-

Amendments to Rules.

List of Cities and Villages having Boards of Health
with name of Health Officer.

August 1, 1897.

## CITIES.

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Alliance	
Bellaire	
Bucyrus	
Canton	.Dr. J. F. Marchand
Chillicothe	.Dr. E. F. Waddell
Cincinnati	
Circleville.	
Cleveland	
Columbus	.Dr. J. B. Schueller
Dayton	
Defiance	Dr. P. H. Aldrich
Delaware	.Dr. E. M. Semans
East Liverpool	
Fremont	.Dr. O. C. Vermilya
Findlay	
Fostoria	
Galion	
Gallipolis	.Dr. J. T. Hanson
Greenville	.Dr. C. N. Nolan
Hamilton	Dr. J. S. H. Potter
Ironton	
Kenton	.Mr. C. J. Griffith
Lancaster	
Lima	.Dr. L. F. Laudick
Mansfield	
Marietta	
Massillon	
Martin's Ferry	
Marion	
Middletown	
Mt. Vernon	
Newark	
Norwalk	
Piqua	
Pomeroy	
Portsmouth	
Salem	
Sandusky	
Steubenville	
Springfield	Dr. Henry H. Seys
Tiffin	
Toledo	.Dr. J. T. Woods
Troy	Dr. J. M. Wright
Urbana	.Dr. H. C. Houston
Warren	Dr. M. L. Williams
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Wellston	
Wellsville	Mr. Jos. T. Warren
Wooster	
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Youngstown	.Dr. H. E. Welch
Zanesville	

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Alger	
Allentown	
Alexandria	
Alvordton	
Amelia	
Andover	
Anna	
Ansonia	
Antwerp ,	
Apple Creek	
Arcadia	
Arcanum	•
Archbold	
Arlington	
Arlington Heights	
Ashland	
Ashtabula	•
Ashley	
Ashville	
Athalia	
Athens	<u> </u>
Attica	
Avon	
Bainbridge	
Bakersville	
Bairdstown	
Baltimore	
	_
Barnhill	
Batavia	- · ·
Beach City	
Bealsville	
Beaver Dam	_
Bedford	
Bellbrook	
Belle Centre	3
Bellefontaine	
Belleville	
Belpre	
Bellevue	
Belmore	
Belmont.	
Benton Ridge	
Berea	
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Berlin Heights	
Bethel	Dr. W. W. Smith
Bettsville	
Beverly	
Blake's Mills	
Blanchester	
Bloomingburg	
Bloom Center	•
Bloomdale	
Bloomfield (Bloomingdale P. O.)	
Bloomville	
Bolivar	
Bond Hill	Mr. D. Edwin Murphy
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Botkins	
Bourneville	
Bowerston	
Bowersville	
Bowling Green	
Bradford	
Bradner	
Bridgeport	
Brilliant	
Brooklyn	
Brookfield	
Brookville	
Broughton	
Bryan	
Buckeye City	<b>J</b>
Brink Haven	
Burbank	•
Butler	
Butlerville	
Burton	
Byesville	
Cadiz	
Caldwell	
Caledonia	
Calais	
Cambridge	
Camden	
Canal Dover	
Canal Fulton	
Canal Winchester	U
Canfield	•
Cannelville (Dillon's P. O.)	
Cardington	
Carey	
Carroll	
Carrollton.	
Carthage	
Casstown	
Catawba	
Calaw va	Di. I. D. Deach

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Cedarville	•
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Centerville	••••••
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Chatfield	
Chester Hill	
Chesterville	•
Chicago Junction.	• •
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Clarksville	
Clarksburg	
Clearpost	
Cleves	G
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Clyde	
Coldwater	
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Croton	
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New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. Heller
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor Oak Hill	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. Morgan
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. Morgan
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor Oak Hill	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. Wm. W. Soborne
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor. Oak Hill. Oakwood	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. Wm. W. Soborne
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor Oak Hill Oakwood	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. W. E. Osborne
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor Oak Hill Oakwood Oakland Oakley	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. W. E. Osborne
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor. Oak Hill Oakwood Oakland Oakley Oberlin	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. W. E. OsborneMr. E. L. BurgeMr. E. L. Burge
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore. North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor Oak Hill. Oakwood Oakland Oakley Oberlin Ohio City Olmstead Falls	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. Wm. W. MorganMr. Wm. W. B. OsborneMr. E. L. BurgeMr. E. L. BurgeMr. James McLeanMr. C. H. Barnum
New Salem New ton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore. North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor. Oak Hill. Oakwood Oakland Oakley Oberlin Ohio City Olmstead Falls Orangeville	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. Wm. W. MorganMr. W. E. OsborneMr. E. L. BurgeMr. E. L. BurgeMr. James McLeanMr. C. H. Barnum
New Salem Newton Falls New Vienna New Washington Ney Niles North Amherst North Baltimore. North Bend North Lindale North Lewisburg North Robinson Norwich Norwood (Hamilton Co.) Oak Harbor Oak Hill. Oakwood Oakland Oakley Oberlin Ohio City Olmstead Falls	Mr. A. C. LawtonDr. Geo. R. ConardMr. Geo. B. WolfDr. P. M. LehmanDr. C. C. WilliamsDr. N. H. CornwellDr. J. E. SomersMr. H. GearleyMr. A. SpainDr. C. C. MandevilleMr. L. D. Wilson, Sec'ryDr. J. C. CadwalladerDr. F. S. HellerMr. Wm. W. MorganMr. Wm. W. MorganMr. W. E. OsborneMr. E. L. BurgeMr. James McLeanMr. C. H. Barnum



Osgood	.Mr. J. W. Sprague
Osnaburg	
Ostrander	Dr. A. J. Pounds
Ottawa	.Mr. Frank Light
Ottoville	.Dr. A. Binder
Otway	Mr. Alfred Jones
Owensville	.Dr. G. G. Rutledge
Oxford	•
Palestine	
Patriot	
Patterson	
Painesville	
Paris	
Pataskala	
Paulding	<u> </u>
Payne	
Peebles	
Pemberville	
Peninsula	
Perrysburg	
Perrysville	
Petersburg (Coal Grove P. O.)	
Phillipsburg (Centre P. O.)	
Philo (Taylorsville)	
Pickerington	
Pierce (Stark Co.)	
Piketon	
Pioneer	
Plain City	
Plainfield	
Pleasant Hill	
Pleasant Ridge	
Pleasantville	
Plymouth	
Polk	
Portage	
Port Clinton	
Port Jefferson	_
Port Washington	
Port Williams	•
Port Union	
Powhatan Point	
Proctorville	• -
Prospect	
Put-in Bay	
Quaker City	
Quincy	
Racine	
Rarden	
Rawson	
Ravenna	
Reading	0 0
Rendville	
Republic	Mr. H. V. Bishop
	Digitized by Google

ooldsburg	Dr. F. G. Taylor
amond (Grand River P. O.)	
hmond	
hville	
chwood	
idgeway	Dr. E. B. Crow
inggold	•••••••
ipley	Dr. Geo. P. Tyler
lising Sun	
Robertsville	•
lockford.	
Rochester	
Rock Creek	
Rocky Ridge	
Rogers	
Roseville	
Rossville (Hagerman P. O.)	
Royalton	
Rushsylvania	-
Rushville	
Russellville	
Sabina	
Salesville	
Salineville	Mr. James Carter
Sarahsville	Dr. W.S. Williams
Savannah	Mr. L. S. Cowie
Scio	Mr. L. O. Rippeth
Sciotoville	
Scott	Mr. Frank Beamer
Sedalia	Dr. E. B. Mead
Senecaville	Dr. W. Scott
Sekitan (Addystown P. O.)	
Seville	
Seven Mile	
Shane's Crossing (Rockford P. O.)	
Shawnee	
Shelby	
Sharon	
Sherodsville	
Sherwood	
	5
Shiloh	<del>-</del>
Shreve	
Sidney	
Smithfield	
Smithville	Mr. A. K. Schaaf
Somerset	
Somerford (Madison Co.)	
Somerville	Mr. Alfred Kapp
South Bloomfield	
South Brooklyn (Brooklyn)	
South Charleston	
South Lebanon	
South Point	
South Salem	
South Salem	

South Webster	
Sparta	
Spencerville	
Springborough	
Spring Hills	
Spring Valley	
St. Bernard	•
St. Clairsville	
St. Mary's	.Mr. J. K. Thomas
St. Paris	
St. Louisville	***************************************
Stewart	Mr. G. H. Hawk
Stockport	
Strasburg	Dr. J. C. Schutzbach
Stouts	
Stoutsville	••••••
Stryker	
Summerfield	Mr. John E. Mosely
Summerford	
Sugar Grove	
Sunbury	
Swanton	
Sycamore	.Mr. R. S. Galleher
Syracuse	
Sylvania	
Tarlton	• -
Taylorsville (Philo P. O.)	
Tippecanoe City	
Tiltonville P. O. (Grover)	
Tiro	
Thornville	
Thurman	.Dr. Gomer E. Jones
Thurston	
Tontogany	• • •
Toronto	, ,
Trenton	
Trimble	
Trimway	
Tuscarawas	
Union City (Ind.)	
Uniontown (Fullerton P. O.)	
Unionville	
Unionville Center	
Uhrichsville	
Utica	
Upper Sandusky	
Van Buren	
Vandalia	•
Vanlue	•
Van Wert	
Vermillion	
Versailles	
Vinton	
Wadsworth	
Waldo	IIT I K HIDDIA 🦳
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Wapakoneta	Mr. A Wahlan
Warsaw	
Washington	
Washingtonville	
Waterloo	
Waterville	
Wauseon	
Waverly	
Waynesburg	
Waynesfield	
Waynesville	
Webster	• •
Wellington	
West Alexandria	
West Cairo	Dr. G. W. Henderson
West Carrollton	
West Chester	
West Elkton	Dr. Elwood Holaday
Westerville	
Western Star	
West Jefferson	
West Leipsic	
West Liberty	
West Manchester	
West Mansfield	
West Middleburg	
West Mill Grove	
West Milton	
West Salem	
Weston	
West Union	
West Unity	
West Wheeling	
Wheelersburg	
Whitehouse	
Wilkesville	
Williamsburg (Batesville P. O.)	
Williamsport	_
Windham	
Willoughby	
Willshire	
Wilmington	
Winchester	Dr. C. W. Salisbury
Winton Place	Mr. John R. Froome
Woodsfield	Mr. A. S. Baker
Woodstock	Mr, D. P. Smith
Woodville	Mr. Samuel Crawford
Worthington	Dr. D. H. Welling
Wyoming	_
Yellow Springs	
York	
Zanesfield	
Zaleski	
Zoar	

# Report of Infectious Diseases

From Health Officers,

For the Year Ending January 2, 1897.

REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS, FOR THIRTEEN WEEKS ENDING MARCH 28, 1896.

·		heria nem. up.	Sca fev		Typ fev	hoid er.	Who	oping igh.	Mea	sles.
94 Towns.										1
,	Cases.	Deaths.	Cases.	Deuths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Aberdeen					i I				88	
shtabula	23		20	1						
Ashville			8						33	
Seach City	2		6		·······		•••••	••••••	30	
Bellefontaine	ĩ		š		. 2		12			1
Belleville									1	
Bellevue	5	8								
Blakes Mills	4	1		<b> </b>	<b></b>			•••••		
Blanchester	•••••		1		2	1		•••••	5	
Bryan	·····i	<u>-</u> -				1		••••••		
Sucyrus	ĝ	2							10	
Byesville		J	1							
ambridge	1		8				3	2	144	
amden			4							•••
anfield	1	1	9			•••••	•••••			·
arthage	1	1	3	•••••						····
hillicothe	i	li	3		2	3			464	
incinnati	142	41	127	7	304	71	94	9	1,759	1 :
ircleville			5		7	1				
leveland	140	57	52	1	95	31	57	5	300	
lyde olumbus	50	11	87	2	4	4	2	2	••••••	
olumbus olumbus Grove	30	1 11	2	-	1		z	~		
onneaut		••••••	-				30		1	
opley			1				<b>.</b>			
oshocton	1						. <b></b>			
e Graff			1		ļ	<u>-</u>				
elaware			2		2	1			4	
oylestownast Liverpool	4	2	2		22		2			
ast Palestine	2	lī			ĩ					
lmwood Place	2 2	2		l					1	1
indlay	5		8 2	l	4	<b> </b>			57	İ
ranklin			2				•••••		;	
remont			1		10					·····
allipolis		·····	3				·	••••••		•••••
reen Springs			-				2		3	
rove City.	1									l
ayesville	<b></b>		1			· •••••••				
icksville			5							
	7	1	1	1	1			••••••	83 1	
conton		_				•••••	1			
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enera eent ebaoon ebaoon eetonia ima	3	1	1 4 5 12							
enera. Tent	3	1	1 4 5		3	1			17	
enera ent	3	1	1 4 5 12			1 3			17	
enera ent ebanon ectonia ima ockland orain ynchburk	3	1	1 4 5 12 3		3	1 3	6		17	
enera  ent ehanon eetonia ima ook ind orain ynehburk adison	3	1	1 4 5 12		3	1 3	6		17	
enera eent ebanon eetonia ima ooekland orain ynehburg adisen anvijeld	3	1	1 4 5 12 3		3 46 1 20	1 3	6		17 5	
enera ent ent ebanon ectonia ima ockjand oorain ynehburg adisen ansfield artin's Ferry iddletown	3	1	1 4 5 12 3	2	3 46	1 3	6		17 5	
enera  eent eent ebanon eetonia ima ooekland oorain ynehburk adisen anstield artin's Ferry iddletown	3	1	1 4 5 12 3 5 2	1	3 46 1 20 2	1 3	6		17 5	
enera  ent ehanon eetonia ima oekland orain ynehburk adisen ansileid artin's Ferry iddletown illord inerya	3 1 3	1	1 4 5 12 3	1	3 46 1 20 2	1 3	6		17 5 35	
enera eent eent eent eetonia ima oekjand oorain ynehburk adisen ansileld artin's Ferry iddletown ilford inerya	3	1	1 4 5 12 3 5 2	1	3 46 1 20 2	1 3	6 4		17 5	
enera eent eent eent eetonia ima oekland oorain ynehburk adisen ansileid arrin's Ferry iddietown iiford iitord iit . Vernon urray City eeyada	3 1 3	1	1 4 5 12 3 5 2	2	3 46 1 20 2	1 3	4		17 5 35	
enera  (ent ebanon eetonia ima oekland orain ynehburk ladison lansfield artin's Ferry inddletown illford linerya It. Vernon urray City evada	3 1	1	1 4 5 12 3 5 2	2	3 46 1 20 2 1 7	1 3	4		17 5 35	
enera ent ent ent ebanon eetonia ima ookland oorain yneburg ladisen ansileld artin's Ferry inddletown illford ilinerya tt. Vernon urray City evada ewark ew California	3 1	1	1 4 5 12 3 3	2	3 46 1 20 2 1 7	1 3	4		17 5 35 46 50	
enera  eent  eent  ebanon  eetonia  ima  oekland  oorain  ynehburk  addsen  ansdeld  artin's Ferry  iddletown  iiford  inerva  tt. Vernon  urray City  evada  ewark  ew California  ew Philadelphia	3 1 3	1	1 4 5 12 3 3	2	3 46 1 20 2 1 7	1 3	20		17 5 35	
lartin's Ferry hiddletown hilford hitrory hitr	3 1	1	1 4 5 12 3 3	2	3 46 1 20 2 1 7	1 3	4		17 5 35 46 50	
enera eent eent eent eent eent ma eetonia ima ookland oorain ynehburk aadisen aanstield aartin's Ferry inddletown iiford inerva tt. Vernon urray City evada ew Philadelphia ew Straitsylie ewstor Falls	3 1	1	1 1 4 5 12 3 3 5 2 5 1 1 1 9 9	2	3 46 1 20 2 1 7	3	20		17 5 35 46 50	
enera ent ebanon ectonia ima ockland oorain ynehburk adisen ansileid artin's Ferry inddletown iiford iinerva tt. Vernon urray City evada ew California ew Philadelphia ew Straitsylie ewston Falls	3 1	1	1 4 5 12 3 3	2	3 46 1 20 2 1 7	3	20		17 5 35 46 50	

## REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS, FOR THIRTEEN WEEKS ENDING MARCH 28, 1896—Concluded.

	Dipht and n ero	nem.	Sca fev		Typi fev		Who		Mea	sles.
Towns.	Cases.	Deaths.	Cases.	Desths.	Cases.	Deaths.	Cases.	Desths.	Cases.	Desths.
Osgood Pleasant Hill. Ravenna. Reading Rock Creek. Roscoe. Salem Shelby Springfield St. Bernard Summerfield Tuscarawas. Unichaville. Warren Washington C. H. Wellston Wellston Westboro Westboro West Cairo. Windham Woodstock Wyoming Youngstown	19 6 2 8 2 1	3 1 1 3 3	- 51	1	1 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	6		1 1 8 4 4	4
Totals	481	145	574	24	581	121	249	18	3,102	71

## REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS, FOR THIRTEEN WEEKS ENDING JUNE 27, 1896.

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71 Towns.										
	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths
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rvan			i							
ucvrus	7	1	1	¦	l	!		ļ	1	
ambridgeambridge			2 2		•••••		•••••		44	1
arthage		•••••	2		1	••••••				
enterburg			4						2	
entreville	4	2		,						
hillicotheincinnati	83	20	100	4	60	28	67	7	148	1
ircleville	83	au	100	1 % 	5	~î	01		130	1
leveland	98	34	58	1	88	40	60	10	523	1
lvde			5		1				1	
olumbusonnesut	23	4	46 33	1 8	5	5	8	8	1 5	
oshocton		*******	33		•	1	1	1		
uvahoga Falls	2	2		·						
e Graff			1						1	
ast Liverpool	1			į					6	
Idorado Imwood Place		•••••	2		1				*********	
armerstown	1	1								
indlay	12	1	6	·						
ranklin	14	4				•				
redericktownremont			24		7	i 1				
reenwich	1								6	
onton	17								133	
ent			2		ļ					
ebanon eetonia	ļ <u>.</u>		1						12	ļ
ima	1 4	2	7						124	
ockland	1		ļ <u>.</u>							1
adison			3				ļ			
agnoliaanstield			1 3		2		·····			
iddletown	2	2	2	•••••		:	l		-	
ilford			11		1				1	
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t. Vernon			5					ļ		
urray Cityapoleon				•••••	1		50	·		
ewark	3		9		4	*********				
ew Philadelphia	2		5	1	6					
ew Washington	` <del>-</del>			,			<b> </b> -		7	
ilesainesville	5	2	3 5							ļ
ortsmouth			ľ				l			
roctorville					·				3	
avenna	2	1	8	` <b></b>		ļ <b>.</b>	ļ		1	
eading ock Creek	14	4	1 1							ļ
alem	: 1	·			¦·····	•••••				
alineville	l		20	6	!					
helby	1									ļ
pringfield	6	1	4		2	2		••••		
ummerfield	3		1		1			•••••		
nion City			2						4	
Zadsworth	1				1				13	
Varren	1		, 9		•••				1	
for this are not 11 11	1	1	1				••••		49	
VarrenVashington, C. HVashington, C. H			1	1			l			
VellsvilleVvomingVvoming			1 2	   . <b></b>						
/ashington. C. H/ellsville. /ellsville. /yoming. oungstown	4	1			38	6	2		3	

<sup>&</sup>quot; Epidemic.

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## REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS, FOR FOURTEEN WEEKS ENDING OCTOBER 3, 1896.

101 Towns.		1 :								
•	Сввев.	Deaths.	Cases.	Deaths.	Cases.	Deaths	Cases.	Deaths.	Cases.	Deaths.
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shtabula	*********		12	•••••	1	********		•••••		·····
thens	1		15							
edford			1		1					l
ellaire	2		8				8			
eliefontaine	9		1		8	2	•••••	•••••		
loomingburg				********	1		•••••			
rooklynryan	····i		1	*********	i	•••••	3	•••••		
ucyrus	7	i	l i	*********	4			•••••		*****
yesville			35	i	7	1				
mbridge			ű	<u>-</u>	l				l	
arthage	i							******		
hagrin Falls	1				3		*******			
billicothe	26	1 1						7		
incinnati.	147	44	75	4	97	29	27	7	80	1
ircleville	. 2	1	8		15	2				····
larington	127	84			2		67	16	128	
leveland	127	- 54	41	1	66	46	67	10	128	1
olumbus	33	3	33		15	13	8	3		····
onneaut			45	2	12	l ii			i	
oshocton			2		4	l i				
e Graff			4		12	ì				
elsware			1							
ast Liverpool	17	4			2					
ast Palestine			ı	j	6	2				ļ
mwood Place					.1	1		••••••	3	•••••
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ostoria	7 16	8	4		10	١ ،	••••••			
ranklinredericktown	10		6	1					*******	
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edeva	-		1							
fbeonburg	i	1			16	2				
reenfield			7							
reen Spring					2					
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rover Hill	15	1	•••••				********			
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arysville	27	1	5		' i					
cConnelsville					2	1				
ddletown	. 1									
Mord		ļ	2							l
neral Ridge	. 1	1			3	1				J
srristowu	1 .		ļ		7					
ount Vergon			5	1					l	ļ
array City					12	. 1	4			
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elsonville	. 2		2		l o					
evada	10	i.	23		3	1	·		i	····
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ewark ew Concord ew Lisbon		<u>.</u>	1 3		i				·	

REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS FOR FOURTEEN WEEKS ENDING OCTOBER 3, 1896—Concluded.

	Dipht and i ero			rlet er.		hoid er.		oping igh.	Mea	ısles.
Towns.	Cases.	Deaths.	Свыея.	Deaths.	Oases.	Deaths.	Cases.	Deaths.	Cases.	Desths.
	Ö	Ā	ō	Ă	ő	Ă	Ö	Ă	ŭ	۵
Niles	27	2	1						l .	
	l "i		8	*******	•••••	••••••	•••••	•••••		·····
Norwood	1	********		•••••			******			
Pataskala			8	;	1			•••••		
Portsmouth	70	4	5	1	1	1				••••••
Ravenna	4	2	5		8	1	30		7	
Salem	5	1	8		14	3				
Salineville	l		4	l				l		
Sandusky	2	1		l						
Shelby	4	3			23	2				
Springfield.	86	12	4	l	2	~~ 1	•••••	*********	1	
			ī	· · · · · · · · · · ·		-				•••••
Sugar Grove					5		*********	********	7	•••••
		•••••			อ				•	
rima	8		1							******
Froy	11				1					
Uhrlchsville					6					l
Union City	l			l	5		5		l	l <b>.</b>
Wadsworth					3				6	l
Wapakoneta	1				2					
Warren	i		7	1	_	•••••			1	
Washington C. H.	β	1	•	*********		••••••	*********	••••••		*******
	8	i	2		•••••		••••••	********		
Wellston	יס	1	z				•••••		4	·····
Wellsville			• • • • • • • • • • • • • • • • • • • •		1	1		•••••	1	
West Alexandria	2	1								
West Liberty			2		2					
White House			2			<b></b>		l	l	l
Windham.									2	
Woodstock	l		5		1				l	l
Wyoming			ľĭ							l
Youngstown	8		82	5	92	9	3	*********	1	ł
Zanesville	8	*********	21	ĭ	52	•	•	••••		l••••••
№ TE2 A THE	3		Z1	1		*******	•••••	••••••		
			552							

## REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS, FOR THIRTEEN WEEKS ENDING JANUARY 2, 1897.

	and	heria mem.		rlet ver.	Typ fe	hoid ver.	Who	oping igh.	Mes	sles.
136 Towns.										
	Cases.	Deaths	Cases.	Deaths	Cases.	Deaths	Cases.	Desths	Сажев.	Deaths
Addystown	2									
Archbald	11 8	8	5	ļ	ī		•••••		1	
Ashley					8		••••••			••••
Ashtabula	4		4							
Ashville Athens		¦	2 5		·····		••••••		·····	·
Avon	11	2				• • • • • • • • • • • • • • • • • • • •				
Bedford			8							
Bellefontaine	16 29	2	4 8	1	5	•••••			3	
Belleville	8	7				•••••				•••••
Bethel			1		ì	1				
Bloomingburg	1			ļ	4 9	3		·····	·····	
Brooklyn	4	1								
Bryan		7	7		1					
Buoyrus	19	9	28	1	5 2	•••••	1			
Caledonia	l i	i			ĩ					
Cambridge	23	5	2				*********		2	
Carlisle	1 2	1			1					
Carthage	23	2								
Castalia	23 2 7	2								
Chagrin Falls	9	1			1		••••••			<i></i>
Chagrin Falls.	84	2		*********	1	********	•••••••			
Cincinnati Circleville	252	69	98	8	110	37	18	2	5	
Clarington	2		2		6					
Cleveland	412	130	110	•••••	52	26	15	6	9 33	
Cleves	i i									<u>.</u>
Clyde Columbus	70	17	68	ļ	33 33	17			2	
Conneaut	1 7	17	74		2	17	••••••	•••••	Z	····
Copley					ļ <u>.</u>				6	
Cridersyille	4	1	4 2							. <b></b>
Cumberland		*********			1		1	•••••		····
Cuyahoga Falls		*******	1							
Dela mana		···· 8	11	1	1	*******				
Delaware	14			*********	*********		*******			
Delphos	5	2					*******			
Doylestown	7	2				•••••			<b> </b>	····
East Liverpool	30	7			15	2	********			
East Palestine	6	2	9		i					
Elmwood Place		4			·····i		2		·····i	
Fairview.	2 80 6 8 9 4	ī					*******			
Felicity	2									
Findlay	57 12	11	25	1	1 5	1	••••••	<b></b>		
Franklin	1 1	i	1	********	1					*********
Fremont	16	9	4		1		1		1	
GalionGibsonburg	21	1	1 1	<b></b>	6	1		·····	·····	
Greenwich			<u>.</u>		;	i		<b></b>		
Grover Hill		1								
HamiltonHillsboro	8	2				•••••••	1		ļ	
Home City	8		<b> </b>		********		********			
Ironton	17		2		1		1			
Kelleys Island	1	••••••			2		••••••			
Kent	1		2		1	********	*******		25	1
Larue	14	1				•••••				
Lebapon-,,	1 2	*********	:		1		6			
ARRAMANL. i iti iti itilita				********				· • • • • • • • • • • • • • • • • • • •	· • • • • • • • • • • • • • • • • • • •	

REPORT OF INFECTIOUS DISEASES FROM HEALTH OFFICERS, FOR THIRTEEN WREKS ENDING JANUARY 2, 1897—Concluded.

	Dipht and r ero	heria nem. oup.	Sca fev	rlet er.	Typ fev	hold er.	Who	oping igh.	Mes	sels
Town.										
	Cases.	Desths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
eetonia					10	1				
exington	1				1					
ima			12			J				•••••
dsbonockland	2	i	1		8		6	1		
ogan	, z	•	2			•••••	١	•		•••••
orain	10	4	-		5	i	*********	********		
ynchburg	8	· · · · · ·				l		1		
anstield	23	2	*********		11	2			1	
larletta	7	4	8		8				20	
[arysville	15	3	5	1		İ	i	ļ	į	···
leClure			7							<b></b>
echanicsburg			6	<b>-</b>				ļ		
ingo Junction	7								ļ	ļ
orristown	4	1			1	•••••			2	l
It. Vernon Iurray City	1	•••••	11		1					
apoleon	3	1		······	8	·····		•••••	l	
elsonville	4	i	6		1	**********	*********			
evada	2				1 4					
evadaewark	152	17	78	1	20	2			1	
ew London	1	1								
ew Philadelphia		·	. 3		1					····
ew Richmondew Straitsville					1					
ew Straitsville		•••••	14	1						····
orth Amherst			ь				10		1	
orth Lewisburg		••••••	, 1	•••••	2.			•••••	•••••	•••••
ainesville		********	9	********	2	********				
ataskala	2	2	10	2						
iqua	109	7	27	ĩ		1				
leasant Hill			27 1	·						
leasant Ridge			5						<b> </b>	<u>.</u> .
ortsmouth	25	: 6	1		2	2				
aveuna			٠٠٠٠٠٠٠							
idgeway		3	1					•••••		••••
t. Bernardalem	14	3	. 23			·				
andusky	35	16	40		, ,	• • • • • • • • • • • • • • • • • • • •			و	
enecaville	4	2	•••••							
helby.	18	4	1		21	3				
pringfield	97	24	19	1	3	8	!		2	
ugar Grove	. 1	' 1			1					ļ. <b></b>
ummerfield					1		10	1	·····	
ycamore	2		2					••••••		
ma	. 16 9	2	4		11	1			1	··· · ·
Ippecanoe Cityroy	ı 9	4	1					•••••		·····
uscara was	8				1			•••••		
hrichsville	2		2		3					
tiea	3						6		l	
an Wert	, ğ	1	1		2	1				
Vadsworth	i				3					
apakoneta	5	4		<b></b>	J					
čarren.	3	1	5		·	•••••				····
Vashington C. H	3	2 2			····		١			
VellstonVellsville	10 4	1	• 4		9	3	,	••••••	15	
Vest Alexandría	1	i					••••		1 10	
Vest Liberty			11	l	2					
Vhitehouse			i	l	l				l	
Vindham			<b></b>						2	ļ
Voodstock			2			*******				١
oungstown	24	9	62	3	74	7	`. <b>.</b>		5	i
ane-ville	11	5	29					•••••		
Total	1 000	1==	900		490				149	
Total	1,923	455	809	17	489	117	78	, 10	שפון	

## Abstract of Reports

OF

## Deaths and their Causes

IN THE FOLLOWING CITIES AND TOWNS IN

OHIO FOR THE

Year ending December 31, 1896.

1896
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DURING M
OF OBIO,
G CITIES
IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF JANUARY,
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CAUSES, I
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REPORTS OF DEATUS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF JANUARY, I
FCETS OF
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BSTRACT OF THE
4

Premature and still birtha.		148
Total violence.	583-2514 - 4 5 - 10 5 5 5 5 5 5 5	8
Total developmental dis- eases.	8 tro 8400 -0481- 8584	151
Pneumonia,	142E1108 1841 80 8 888	121
Pleurlsy.	<u> </u>	9
Meningitis.	120-401 04	28
Heart disease.	48201- 0 -01-6-5 000	ᅙ
Gastritis and peritonitis.	<u> </u>	2
Convulsions.		22
Bronchitis.	තුනනහ නන – එන-	85
Bright's disease	20000 0 0	88
Apoplexia.	-5489 31 82 - 8	<b>8</b>
Total local diseases.		<u>26</u>
Phthisis pulmonalis.		38
Cancer.	-8774001 01   01	8
COURT COURT COURT COURT	= 28.82-m-10-10-meno - 12.00	381
Whooping cough. Total constitutional dis-	<del></del>	61
Typhoid fever.	: : : : : : : : : : : : : : : : : : :	5
Tonsillitis.	::::::::::::::::::::::::::::::::::::::	93
Scarlet fever.		0
Puerperal fever.		4
Measles.		2
Dysentery. Malarial fevers.		*
Disenters	: N : : : - : - or	•
Cholera morbus.		;
Cerebro-spinal meningitis.		6
Cholera infantum.	* -	•
Croup and diphtheria.		8
Total zymotic diseases.	::02884001-40440120::-9800   :: :: :: :: :: :: ::	<u>\$</u>
OVET ONE year.		<u>8</u>
Total under five years and		
Total under one year.	3.488 TE SHIT A 4 4 10 10 10 10 10 10 10 10 10 10 10 10 10	8
Annual rate per 1,000.	8: 128 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	14.52
Total deaths, all causes.	4 83-0032-53200-0000000	<u>§</u>
	:	_
Population (estimated).	25. 1.28 2.29 2.21 2.22 2.22 2.23 2.23 2.23 2.23 2.23	1,864,708
Cities of 10,000 inhabi- tants (census 1860) or over.	Akron Canton Cinicipate Chilicotte Chincipate Cleveland Columbus Columbus Columbus Columbus Handlon Ironton Ir	Totals
5 <b>3</b>	A Part Part Part Part Part Part Part Part	•

No report.

S S S S S S S S S S S S S S S S S S S		e l	V DEV	OF DEATHS, AND THERE	AND	EL.	dr C	CAUSES, IN	3158		THE		3	Pollowing Cities	OIT	F3 (	OF O	OHIO, DURING MONTH OF JANUARY.	DUE	ING	ÇW.	TI	Ç	ZYC	UAF		Ž
7.794   6.654	ities of less than 19,00 habitants (census 1890)		Total deaths, all causes.		Total ander five years	l'	Croup and diphtheria.		Cholera morbua	Dysentery.	Mea-les.	Soarlet fever.	Typhoid fever.	-sib ianoitutitanoo lasoT	Свисет.			!	Bronchitle.	Convulsions.	<del></del>			Paeumonia.	Total developmental dis-	Total violence	Premature and still birtha.
6.046 18 31.66 2 2 3 1 1 2 2 3 2 4 4 1 1 1 2 3 1 1 1 2 2 2 1 1 1 2 2 2 1 1 1 2 2 3 2 4 4 1 1 1 1 2 3 2 2 4 1 1 1 1 2 3 2 2 4 1 1 1 1 2 3 2 2 1 1 1 2 2 3 2 2 4 1 1 1 1 1 2 3 2 2 1 1 1 2 2 3 2 2 4 1 1 1 1 1 2 3 2 2 1 1 1 1 2 2 3 2 2 4 1 1 1 1 1 1 2 3 2 2 1 1 1 1 1 2 3 2 2 1 1 1 1	!:	=		92						#				-		-	<u> </u>			-		<u>::</u>			:0)		<u>                                     </u>
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1,0,654    1,123    1,135	llipolis eenville.	4.1.		<u> </u>	: :	<del>-</del> 2			Ť			-	-		:-	-	% O				:	.01	- ;	-	_		<u>.                                    </u>
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11.027 7.164 6 10.05 6 666 8 14.39 7.587 4 6.12 10,082 7.584 7 12.29 6 884 7 12.29 6 884 7 1 12.39 7.471 13 20.88 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Vernon	<b>6</b> 0	10	8:				<u>.</u>	÷	÷	÷	İ	Ť	<del></del>	į	o -	40		;	İ	<u>.</u>	<u>:</u> ∞-			<u>.</u>		<u>:</u>
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6,884         7         12.29         8         1         1         8         1	ashington C. H	. 6	∞ <u>c</u>	13.05 10.05	;			01	<u> </u>	÷	÷	-	Ţ <del>-</del>		_	- 6	Q 2	1	Ī	Ť	T	-0	<u>:</u>	+			
7.477         13         20.88         4         1         1         2         2         3         6         1         2			1	12.29	+			Ť	İ		İ					_	93			Π	<del>-</del>	: <u>!</u> r=	<u> </u>		: !	Ц	
202746 206 12.22 11 19 36 7 3 1 1 1 1 2 2 2 5 5 37 5 30 102 6 7 7 7 8 8 8 8 4 2 2	nia	1	13		; ▼			Ħ	Ħ	Ħ	Ħ	İ	::	<u>!</u>	i	: :ea		Щ	-	<del>-</del>	-	<del>!!</del>	H	<u> </u>	-		<u>:                                    </u>
	Totals	802 748	88	12.32	-		1	8			-	63	93	63	2	8	<u> </u>	10	-	8	) ac	   88	14	88	12	000	1_

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28 20	Premature and still births	-483 4 8
χ,	Total violence.	554- 88 58-8
IAR	Total developmental dis-	38-c 0 33-2 431-0 4800 P
FEBRUARY,	Pneumonia	98 8 2 6 3 4 9 F 6 F - 6 2 3
E	Pleurisy.	o
101	Meningitis.	8= 4 8
NTE	Heart disease	35 - 1 - 3 - 1 - 3 - 5 S
9	Gastritle and pertonities.	
ING	Convulsions.	-38 x-3   N - S   B
OUR	Bronchitls.	81-21 - 0.4- 0.4   18
<u>0</u>	Bright's disease,	: -500-0
ОН	A poplexia.	268
THE FOLLOWING CITIES OF OHIO, DURING MONTH OF	Total local diseases.	
TIES	Phthisis pulmonalis.	
CE	Свпсет.	0 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
ING	Total constitutional dis-	1 2 2 3 8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
<b>≱</b>	Whooping cough.	::-85:::::::::4:::::4:::::4:::::4:::::4:::::4:::::4:::::4:::::4:::::4:::::4:::::14::::4:::::14:::14::
3	Topallitis. Typhold fever.	
2	Bearlet fever.	: ; ; = - ; - ; : ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
<b>E</b>	Puerperal fever.	: : : : : : : : : : : : : : : : : : : :
Ä	Measles.	: : :8 : : : - : : - : : * : : : : *   &
	Malarial fever.	2   1   0   1   1   1   1   1   1   1   1
Z	Dysentery.	
	Distribeal diseases.	
υģ		
SES,	Cholera morbus,	
USES,	Cerebro-spinal meningitis. Cholera morbus,	
CAUSES,	Cholera intantum. Cerebro-spinal meningitis. Cholera morbus,	20.0
HEIR CAUSES,	Croup and diphtheria Cholera intantum. Cerebro-spinal meningitis. Cholera morbus.	20 20 10 10 10 10 10 10 10 10 10 10 10 10 10
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ITS OF DEATHS, AND	Annual rate per 1,000.  Total under one year.  Total under the years and over one year.  Total xymotic diseases.  Croup and diphtheria  Cholera intantum.  Cerebro-spinal meningitis.	331, 5786 25 7 199 25 18 35 8 10 18 35 19 18 18 18 18 18 18 18 18 18 18 18 18 18
ITS OF DEATHS, AND	Population (estimated  'Total deaths. all causes  Total under the year.  Total under the years and over one year.  Total symotic diseases.  Croup and diphtheria.  Croup and diphtheria.	37.366 35 7.19
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ABSTRACTS OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF MARCH, 1866.

Premature and still births.	4 22 22	82
Total violence.	- 4048	5
Total developmental dis- eases.	4 50000 0000	<u>5</u>
Pneumonia.	- 33 Ecc00-0 - 40 0 -00cc	181
Pleurisy.	- 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4
Meningitis.	<u>812 3 3 4 8 8 − − ∞</u>	8
Heart disease.	31 THE GAN SINN WROTE SI-01-	8
Gastritls and pertronitis.	524 8 4	8
Convulsions.	0,584	28
	-2-8 2- 2- 2-	1 5
Bronchitis.	40 :31- :3 :01-:01-:01-:01-:01-:01-:01-:01-:01-:01-	8
Bright's diseases,	-:	122
Apoplexia.	3 4 % 6 % 8 m 0 m 4 m 4 m 10 m 24 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 4 m 8 m 8	
Total local diseases.	. •	6 77.4
Phthisis Pulmonalia.		2
Cancer.	6, 654.50	22
Total constitutional dis-	4 00 00 00 00 00 00 00 00 00 00 00 00 00	313
Whooping cough.	:cn	0
Trphoid fever.	:- c 3 c - w : i s : : : : : - : - s	55
Tonsillitis	[ [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [	61
Scarlet fever.		
Puerperal fever.	: : : : : : : : : : : : : : : : : : :	
Measles.		8
Malarial fever.		-
Diarrhueal diseases. Dysentery.		03
Cholera morbus.	<del></del>	1 00
Cerebro-spinal meningitis.	-2-10 - 10 - 1 - 0 1	12
Cholera infantum.		2
Croup and diphtheria.	33 -32 <u>∞</u> -∞	2
Total zymotic diseases.	r 664754 40 0= 0-080r	88
Over one year.	3388res 318 4 II4r	<u> </u>
Total under one years and Total under five years and	4888	-  - 📆
7997 940 79htti [810T]	<u> </u>	
Annual rate per 1000.	8. 33. 35. 35. 35. 35. 35. 35. 35. 35. 35	14.63
Total deaths, all causes.	2 372 <u>458877</u> 2527~28855~575788	1.056
Population estimated.	25.15.25.25.25.25.25.25.25.25.25.25.25.25.25	1,364,703
Cities of 10,000 inhabi- tants (census 1890) or over.	Akron  *Canton Chilicathe Chilicathe Chicinati (Seveland Cleveland Cleveland Cleveland Cleveland Liverpool East Liverpool Frindlay Hamilton Lina Manskilon Newark Portsmouth Sparingfield Springfield Springfield Springfield Tiffin Tolledo	Totals

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ABBTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF MARCH, 1886. Premature and atill birtha i Total violence. Total developmental į ន Pneumonia. Pleurisy. Meningitis. į Heart disease. Gastritis and peritonitis. Convulsions : Bronchitis. į Вифрі'я disease. 23 A poplexia. : 8 Total local diseases. ši Phthiais pulmonalis. Свасет. i : Total constitutional diseases. 8 M pooblug cough Tonslillitis. Typhoid fever. Scarlet fever. 1 1 1 Puerperal fever. Measles T ÷ Dysentery. Malarial fevera ፥ Diarrhoeal diseases. Cholera morbus. Cerebro-spinsi meningitis į Cholera intantum Croup and diphtheria. : 19 i • : Total symptic diseases Total under five years and over one year. ፥ 16 Total under one year. 25.57.62.58 463.78.588 25.29 25.29 25.20 25.20 25.20 Ī .000.1 rate per 1.000.A : e e I e : e e e e e : 71-662 5 Total deaths, all causes. 206,214 Population (estimated) Foureroy.
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Warren
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VIBTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING OFFIRS OF ORIO, DURING MONTH OF APRIL, 1996

Premature and still births.	
Total violence.	8
Total developmental dis-	
Preumonia	
Pleurisy.	
Meningitis	
Heart disease.	94 94 - 94 94 - 94 95   18   8   8
Gastritis and peritonitis.	<u> </u>
Convulsions	1 1 1
Bronchitis.	
Bright's disease.	
A popiexia.	
Total local diseases.	4 8100 8100 00 1 4 00 4 00 00 4 810 10 00
Phthida pulmonalia	o o −o o o o o −o o o
Cancer.	
Total copstitutional dis-	00000 m 000-0 00 8
Whooping cough.	
Typhoid fever.	
Tonsilitis.	
Puerperal fever. Suarlet fever.	
Measles.	
Malarial fever.	
Dysentery.	
Diarrhosal diseases.	
Сиојега тогриа	
Cerebro-spinal meningitis	: : : : : : : : : : : : : : : : : : :
Cholera infantum.	
Croup and diphtheria.	03
Total tymotic disease.	19 01
Total uuder five years and over une year.	
Total under one year.	24 00 m 23 65 N
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Total deaths, all causes.	8 5 4 9 5 0 1 1 2 8 8 8 8 8 1 1 1 1 1 1 1 1 1 1 1 1
	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Population (estimated.)	01146 QQ664 XQ6706X1 F. 614652 F. 8
Cities of less than 10,000 inhabitants census 1800 )	A lilance Bacgrans Bacgrans Bacgrans Forstoria
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THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF MAY, 1896.
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Premature and still birtha	9 9844 1 - 200 80	::  <del>3</del>
Total violence.	æ 87-14014 € 01 01 01-	-   &
Total developmental diseases.	5 8 2 4 2 1 12 5 51 5 - 51 - 51 - 51 - 51 -	118
Pneumonia.	os 5-82 - 4 os 9 -00 o	<u> </u>
Pleurisy.	6/84	1
Meningitis.	- <u>28</u> 222 2	1 28
Heart disease.	- mgaca nan - na m	:   8
Gastritls and perttonitis.	3.0 0 0 0 0 0 0	<del>-   1</del>
Convulsions.		: 8
Bronchitis.	N 20 N-N	*
Bright's disease.	- 0000-	86
Apoplexia.	00 -5400 0000	- 8
Total local diseases.	5 2488245r984 88888 r588	8
Phthisis pulmonalis.	N 088 00-00-00-00-00	œ   æ
Сапсет.	64 80 164 1661 1661 1661	185
Total constitutional diseases.	4 42487-01	<u>~   8</u>
Whooping cough.	ø»-;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	- 10
Typhoid fever.	1112201-11111-11-4	3 6
Tonsillitis.		:1:
Scarlet fever.	;0) : : : : : : : : : : : : : : : : : : :	:   ~
Puerperal fever.	-	: 14
Measies.	:::×::::::::::::::::::::::::::::::::::	- 12
Malarial fevers.	-00 :	:   60
Dysentery.		:   24
Diarrhoral giseases.		:   6
Cholera morbus.		:18
Cerebro-spinal meningitis,		:100
	::::::::::::::::::::::::::::::::::::::	<del>~</del> † <u>@</u>
Cholera infantum		=
Croup and diphtheria.		:   <sup>23</sup>
Total zymotic diseases.	w 57-01-w-31-01- w 0 34-0	-
Total under five years and over one year.	ω Ω ω ω π π π π π π π π π π π π π π π π	18
Total under one year.	2 12 2 c 2 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	31
000, I rag etar launn A	0	13.50
Total deaths, all causes.	\$ 050 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	% S
Population (estimated.)	25	
Cities of 10,000 inhabi- tanks (census 1899) or over.	Akron Chillicothe Chillicothe Chillicothe Chermani Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Fast Liverpool Fast Liverpool Fast Liverpool Fast Liverpool Fast Colorable Massilon Newark Massilon Newark Springeried Springeried Tindnewy	ZanesvilleTotals
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Premature and still births.	7 8 8 7
Тогві моденсе.	
Total developmental dis-	9 00-00 -4 4 00- 4 2
Pneamonia.	2 1 1 1 1 1 0
Pleurlsy.	
Meningitia	2
Heart disease.	88 8 1 1 8 8 1 8
Gastritis and peritonitis.	
Convulsions.	08
Bronchltis.	
Bright's disease.	**************************************
Apoplexia.	2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total local diseases.	-4-10 4403/00 10000 1003 10 100 01 E
Phthisis pulmonalis.	α α α α α α α α α α α α α α α α α α α
Cancer.	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Total constitutional dis-	484 0000 - 00 00-00 TO 4
Typhoid tever. Whooping cough.	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Scarlet fever. Tonaillitis	
Puerperal fever.	
Measles.	
Біатгірœаі дікеавев. Бувепіту.	
Cerebro-spinal meningith	
Cholera infantum.	01
Croup and diphtheria.	
Total symotic diseases.	<u>। अं अराज अनल अ अ                               </u>
Total under five years and over one year.	
Total under one year.	21 21 21 21 21 21 21 21 21 21 21 21 21 2
.000, I 19q 9tar launnA	88.50 00-887.4 8000000000000000000000000000000000000
Total deaths, all causes.	Fee 50-1977 1-1-1-50-00 1 x 1-5-1-1 2
	7.7.7.3.4 6.6.6.9 6.6.6.9 6.6.6.9 6.6.6.9 6.6.6.9 6.6.6.9 6.9.9 6.9.9
Population (estimated).	
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Cities of less than 10,000 inhabitants— Census 1890.	*Alliance Bellaire Bellaire Circusylia Circusylia Circusylia Circusylia Circusylia Callipolis Callipolis Action Marion Ma
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I	Premature and still births.			¥	g	<b>a</b> (	•		į	-	•	•	3 4	<b>60</b> (	N	:	63	121
1896.	Total violence.		61	ន	15	ကျ	-	-		c	•	ľ	<del>*</del> —	63 .	4		- 00	28
- 11	Total developmental dis- eases.	<del></del>	-	ર્જ	ន	6	0	-	031	~ 0	9	ľ	- 63	<b>46.</b> (	×	20.6		15
JUNE,	Pneumonia.	25	*	6	83	2	3	-	87	N -	-	1		1		-~	<b>∞</b> —	88
OF J	Pleurisy.		<u>:</u>		;	i	1	<u> </u>	:	:		İ	i	i	Ť			İ
	Meningitis.			5	2	es c	<del>,</del>		÷	20	=	÷		-	÷	····°	61	2
MONTH	Heart disease.	-01	<u>:                                    </u>	16	::	io c	ē 6	\$ 600	89	ī	•	<u>-</u> :	= ;	-	4"	Ť	1000	18
	Gastritis and peritonitis.	4	: : 64	0	6		×	1 1	:	+		=	<u> </u>	<u>8</u>		~	٥٠ .	88
DURING	Convulsions	-	÷	2	34		•		=	<u>:</u>		1	<del>:</del> -	;	÷	- 0	- m	8
DO	Bronchitls.	<del>-                                    </del>	-	ī.	2	<del>.</del>	-	<u>: :</u> : :	-	<u>:</u> °	•	÷	<del>:</del> ;	i	-		<del>-</del> :	18
оню,	Bright's disease.	- 2	<u>: :</u>	1-	82	;	=	<u></u>	es	:	<del></del>	;	- ;	÷	N	~	<del></del>	18
	Apoplexia.	- 61	: :	23	æ	; + <del>7</del> 6	~		-	<u>:</u> :	<u> </u>	<u>:</u>	:-	<u> </u>	<u> </u>	÷	• : :	83
OF	Total local diseases.	- <b>9</b>	13	Š	<b>2</b> 2	£ :	4.0	<u>: :</u>	82 :	4. 7.	. 4	60.	c.	4.	-	44	2000	12.0
CITIES			<u>:</u>			25		:63	<b>89</b> .	<del>-</del> -			- 67	7	+	100	: 4	139
	Phthisis pulmonalis.	- 63	<u>:</u> : .	_	_	0) ¢		<u>:</u>	_	;-	•	<u>:</u>	- ;	;	-		:	15
FOLLOWING	eases.	-	: 33	<u>.</u>		<u> </u>	<u> </u>	- 53	٠ م	: w	: 01	<u>:</u> ,	, <del>2</del>	4.	0	no g	20	274
▶	Total constitutional dis-		:									≟		_	_	<u>.                                    </u>		1
3	Whooping cough.	<u> </u>			4		٠.	<u>: . !</u>	. !	<u>:</u>						: : *		1=
占	Typhoid fever.			=	2	÷	:-	:-	-:	-		<u>:</u>	<u>:</u>	- 12	:	<u> </u>		<del>2</del> 2_
	Tonsilitie.	<b>-</b> :	: :	01	-:	- :	<u>:</u> -			-	-:	÷		-:-	÷	: : : :-		100
THE	Scarlet fever.	<del></del> ÷		_	C1							÷				÷		100
F	Puerperal fever.	<del>-                                    </del>				÷			_			÷			:		<u> </u>	1 36
Z	Meusles.			_	_	=:						:-			_	Ħ		2
_ '	Malarial fevers	-	61										;=		÷	<del>: :-</del>	• • •	<u> </u>
CAUSES	Distribural diseases. Dysentery.		<u>:</u>						÷		•			Ť		- -	r i 🕆	10
<u> </u>	Cholera morbus.	<u> </u>				÷		Ħ	_			-				1 1	: : :	100
A	Cerebro-spinal meningitis.	-	-	23	-	٠,٠	70	: :	-		: :	:	- :	: '	:1	: :	111	1=
	Cholera infantum.	4	33	33	38	=:	13	· eo	4	-	•		C1	;	-			5
THEIR	Croup and diphtheria.			=	ıc		=		÷	:		•		1	Ī	· °	-	83
	Total zymotic diseases.	,rc	ı.c	20	æ	97.8	3	ı.c	į-	7 -	- 61	- 0	21-		0	•	1-6	83
AND	Total under five years and over one year.			8	æ	<b>O</b>	0-	- 67	-	- 6	•	•	- 00		Ñ .		. 7	32
HS,	Total under one year.	_ 10	: :	2	5	2		1 2/	2	· -	-		N 00	00 1	-	8	3 æ æ	<b>\$</b>
DEATHS,	Annual rate per 1000.	9.90	88	:: :2	13.89	10.96	5 E	9.6	15.08	10	20	3.76	3	6	83	5.63	13	13.09
OF I	Total deuths, all causes.	31	: 61	447	77	Ξ	£ (	- 19	ļ.;	<u>e</u> e	=	ю:	T (-	9	5 -	-129	88	1.488
SL		<u> </u>	<u>:</u>	ic	<u> </u>	e s	2: :	2	2	2 2	. 9	6;	- 0	9	લ ⊊	2.7.5	8 <del>1</del>	102
OR		2 566	2	i-	×	÷,	£ ₹ 0 #										200	7.
ABSTRACT OF THE REP	Population (estimated).	, ş.	_	8	8	2:	ī -	- ₹ì	23	<u>-</u> •	۰			. 33 .	4-		- m - m	1.38
Œ		l	<u>:</u>				٠	<del>.</del>	-:-	-			-	_	:			<del>' :</del>
H	<b>9</b>	١ .				i				:		4	•		:	: :	1   1	:
<u>-</u>	Cities of 10 000 inhabituits census 1890) or over.		hillicothe			olumbus	hayton	[nd]av	:			Massillon	New urk Portsmouth		Springfield	! !	Youngstown Zanesville	Totals
Ō	Cities of 10 000 bitants, census or over.				:	:	į		lamilton	i								•
F.	10 (e.p.	}			:	:				:				Sandusky	:	l'imn	Youngstown Sanesville	÷
Ą	ies of 10 ants eer or over.				:	:		3		÷	: :		:		: 1		E .	
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5	54	Akron	arton hillicothe	neinnati	Teveland	Ξ	Ξ.	3 /	Ξ	ronton	Mansfeld.	Ė	Portsmouth.	É	Springfield	5 - 5	127	Į.
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Premature and still births.	
Total violence.	ο - · · · · · · · · · · · · · · · · · ·
Total developmental dis-	
Pneumonia.	<u> </u>
Pleurisy.	
Meningitis	
Heart disease.	
Gastritis and peritonitis.	
Convilsions.	
Bronchitis	
Bright's disease.	- 400 - a
A poplexia.	
Total local diseases.	හතයන නයනෙත : හස⊣ තයතෙත ය යනහ හ ක කි
Phthisis pulmonalis.	<b>8</b>
Свисет.	
Total constitutional dis-	S
Whooping cough.	
Typhold fever.	**************************************
Tonsillitis.	
Scarlet fever.	
Puerperal fever.	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Messies	
Malarial fevers.	
Dysentery	[ [ [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
Ularrhœal diseases.	
Cholera morbus.	
Cerebro-spinal meningritis.	4
Cholera infantum.	
Croup and diphtheria.	<u>:0-010                             </u>
Total zymotic diseases.	
Total under five years and Total one year.	
Total under one year.	
Annual rate per 1,000.	10.00   10.00
Total deaths, all causes.	11-0-0000-13 m-4-130-2 r 640-1- F
	: - + m x N 0 x : 10 x x x x x x x x x x x x x x x x x x
Population (estimated).	11.291 17.791 17.791 10.646 10
Cities of less than 10,000 inhabitants.	e erry.
Cities C	*Allance Bellaire Bellaire Bellaire Bellaire Circleville Defiance Defiance Defiance Callion Gallion Gallionits Gallipolis Gallipolis Matrich M

ABSTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF JULY, 1886.

Premature and still birtha.	-&8:::
Total violence.	8 -8 8 8 8 8 8 - 8 - 8 8 - 8 - 8 E
Total developmental dis-	- 1887-4 81-80 88-4 00
Pneumonia.	84 2 2 2 2 2 2 2 2
Pleurisy.	03 - 60
Meningitis	8 180 N - N 8
Heart disease.	4 0582- 4- 00000 00-000 6
Gastritis and peritonitis.	87-400
Convulsions.	
Bronchitis.	9 20 20 20 20 20 20 20 20 20 20 20 20 20
Bright's disease.	4 004 00 00 -00   8
Apoplexis.	81 314-1 1 8-98 6 1 E
Total local diseases.	7 - 2 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4
Phthisis pulmonalis,	2 8 8 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8
Свпсет.	12 r × 1 × 1 × 1 × 1 × 1 × 1
Total constitutional dis-	7 488 4 10 10 10 10 10 10 10 10 10 10 10 10 10
Whooping cough.	: : : : : : : : : : : : : : : : : : :
Typhoid fever.	- : :0004- : : : : : : : : : : : : : : : : : : :
Tonsillitis.	
Scarlet fever.	
Puerperal fever.	: : : : : : : : : : : : : : : : : : :
Measles.	
Malarial fevers.	-
Dysentery.	
Diarrhœul diseases.	-
Cholera morbus	
Cerebro-spinal meningitis.	-00        -          -      -      -
Сподета іптаціцт.	r 4827000000000000000000000000000000000000
Croup and diphtheria.	
Total zymotic diseases.	<u> </u>
Total under five years and over one year.	က က သော က
Total under one year.	1 4 1 5 1 5 4 2 1 - 3 2 6 1 - 4 8 - 1 3 8 3 1 - 4 8 3 1 -
Annual rate per 1,000.	21 21 22 22 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25
Total deaths, all causes.	& 23 \$ 7 1 4 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Population estimated).	37, 568 38, 175 38, 17
(Titles of 10,000 inhabitants (cersus 1890) or over.	Akron.  -t'anton  -t'anton  -t'anton  -t'anton  -t'anton  -t'anton  -t'archind

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900.	Premature and still birtha.	<sup>30</sup>
۲,	Total violence.	N - N N N N N N N N N N N N N N N N N N
JULY	Total developmental dis-	
Ç,	Pneumonia.	
	Рієливу.	91
MONTH	Meningitis	-
	Heart disease.	81 4 4 1 1 1 1 1 91
DURING	Gastritls and peritonitis.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Convulsions	1 2
OHIO	Bronchitis.	
OF C	Brit's diseases.	
	A poplexia.	
CITIES	Total local diseases.	54 to 64 - 7 - 4 to 50 - to 7 4 to 50 to 7
	Phthisis Pulmonalis.	20-22 20-20 20 1 1 1 2 2 2 3
FOLLO WING	Свисет.	
107	Total constitutional dis- eases.	01-0 00 300 -01 -02400 00 88
OL	Whooping cough.	[60
E,	Typhoid fever.	[9]   [4]   [4]   [4]   [5]   [5]   [6]
区	Tonslittle.	
тне	Scarlet fever.	
	Pacrperal fever.	
Z	Mearles.	
- 1	Malarial fevera	
UBKB	Dykentery.	
20 j	Diarrbosal diseases.	
2	Сројета тогрия	- N
<b>ک</b>		:::::::::::::::::::::::::::::::::::::::
	Cerebro-spinal meningitia	0000 - 0-0 T 3
тнеги	Cholera infantum.	
5	Croup and diphtheria.	544 01 01 01 01 01000 1c-1 4 4 -01 -1 w 8
Ž	Total zymotic diseases.	·
. i	Total under five years	
ATHR	Total under one year.	<b>2000</b> 1 − − − − − − − − − − − − − − − − − −
DEA	Amount rate per 1000.	18. 18. 18. 18. 18. 18. 18. 18. 18. 18.
oř.	Total deaths, all causes.	Fall \$2000 = x x 355000 3 100-40 5 6
вляо	Population (estimated).	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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тни	Cities of less 10 000 lababitants. Census 1890.	*Alliance Bellaire. Bucyrus. Bucyrus. Bucyrus. Bucyrus. Bucyrus. Buchware. Suchine Frenon. Frenon. Gallipolis Gallipolis Gallipolis Gallipolis Anrican. Martion. Mart
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<	)	*Alliance Bellaire. Bucyrus. Bucyrus. Bucyrus. Bucyrus. Bucyrus. Buchane Delaware. Frestoria.
2	<sup> </sup> ಕ್ಷತ್ತತ	*Alliance Bellate Bellate Bellate Bellate Circleville *Jueflance Delaware Fostoria Fostoria *Gallipolis (Gallipolis *Gricenville *Gricenville *Gricenville *Rarion Martion Martion Mit. Vermon Mut. Vermon Norwalk *Priona *Priona *Priona *Priona *Priona *W. writeri
E,	_	*Alliance Bellaire, Bellaire, Blucking Blucking Blucking Blucking Blucking College Both and Britan College Both and Britan Britan Maritius
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Premature and still birtha.	9 52-8 8 90 44 05-0	139
Total violence.	Ø :02444 :01 4-01-00 -0000	107
Total developmental dis- eases.	4 :0.05 to 4 0 to 20 to 20 to 2	ह्य
Pneumonia.	53 4-1 st - 1 stst-	30
Pleurlay.		4
Meningitia	∞ υδω 4 υσι σι ∞ σι	9
Heart disease.	2 240 1188 1898 181	105
Gastritis and peritonitis.	- 00240 00 -00 000	8
Convulsions.	<b>©</b> 35000 − − ∞01	8
Bronchitle.	12-1	8
Bright's disease.	83 83 80 G = 83	83
Apoplexia.		8
Total local diseases.	5 088844-41-00449-100008	88
Phthisis pulmonalis.	-88'2' resease - 6-44-4 stans	108
Свисет.	2 50000- 100 m	83
Total constitutional dis-		88
Myooping congr.		13
Typhoid fever.	- : 4 T T T T T T T T T T T T T T T T T T	8
aitillianoT		:
Scarlet fever.		œ
Puerperal fever.		0₹
Measles.		70
Malarial fevers	0	•
Dysentery.	E E E E E E E E E E E E E E E E E E E	88
	101-4- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Marrhwal diseases.	<del></del>	. <b>2</b> 2_
Cholera morbus.		15
Cerebro-spinal meningitis.	<del></del>	
Cholera infantum.	0 m884mmm 84	5
Croup and diphtheria.	1 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	88
Total zymotic diseases,	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	<u>\$</u>
Total under five years and under one year.	a & & & & & & & & & & & & & & & & & & &	<u>\$</u>
Total under one year.	1	<del>2</del>
Annual rate per 1,000.	99 11 22 22 23 25 25 25 25 25 25 25 25 25 25 25 25 25	14.53
Total deaths, all causes.	4 12 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.654
Population (estimated).	28	1,364,703
Cities of 10,000 inhabi- tants, census 1890, or over,	A kron  ('mineothe' ('mineothe' ('menmati) ('cleveland	Totals
<u> </u>	Child Child	

ABSTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF AUGUST, 1886.

0.22	STATE BOARD OF HEALTH.
Premature and still births.	
Total violence.	9
Total developmental dis-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Pneumonia.	- 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	•
Pleurisy.	
Meningitis	
Heart disease.	
Gastritis and peritonitis.	
Convulsions.	
Bronohitis.	2
Bright's disease.	g
Apoplexia.	88 1 1 1 1 1 1 1 0 0
Total local diseases.	100F 1043F 100- 10403 51 100 -4 - E
Phthisis pulmonslis.	8 1 8 1 1 8 2 1 1 8 8 1 1 8 8
Сапсет.	O4
62568.	
Total constitutional dis-	
Whooping cough.	-   -   -   -   03   -   02   -   03   -   03   -   03   -   04   -   0
Tonsillitis. T;phoid fever.	
Scarlet fever.	63 - 6
Puerperal fever	
Measies.	
Malarial fevers.	
Disentery.	- 2 - 2
Diarriboni diseasea.	
Cholera morbus.	
Gerebro-spinal meningitia	
Cholera infantum.	
Croup and diphtheria.	2   0   10   10   10   10   10   10   10
Total aymotic diseases.	
Total under five years and over one year.	13 13 13 13
Total under one year.	60 -00 400 1031 61 6100 12
Annual rate per 1,000.	266 6862 58 5000000 8 500 40 8 500 40 8 50
Total deaths, all causes.	<u>€-0 500000000000000000000000000000000000</u>
Population (estimated).	7.474 6.689 6.780 6.780 6.780 6.780 6.780 6.780 7.161 7.161 7.171 7.161 7.171
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Cities of less than 10,00 inhabitants. Census 1860.	
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\*No report. +No deaths

ABSTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO, DURING MONTH OF SEPTEMBER, 1996.

Permature and still births.	-82r
Total violence.	v -812/2 - 0 - 0 - 10 - 100 - 100
Total developmental	e - 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Pneumonia.	
Pleurisy.	
Meningitis.	
Heart disease	2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Gastritis and pertonitis.	2 2 2 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Convulsions.	- 4 × + × × × × × × - 6
Bronchitis.	2000
Bright's discuse.	-6.64 2
Apoplexia.	- w w w w w
Total local diseases.	O CHACK WINESALAKUNESEE P
Phthisis pulmonalis	9 - \$35.55 80 4 F 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8
Свисет.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Total constitutional diseases.	& 3,4830r A & C & S & C & S & C & S & C & S & C & S & C & S & C & C
Мрооріпя сопян	:
Typhoid tever.	01 :01 3 5 C 4 : 01 - 13 00 - 01 01 - 1 : 02 4 - 1 12
Tonsilitits.	
Searlet fever.	: : : : : : : : : : : : : : : : : :
Puerperal fever.	
Measles	<u> </u>
Marial fever.	01 : : - : : : : : : : : : : : : : : : :
Dysentery.	: :
Diarrheal diseases.	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Cholera morbus.	1     -0
Cerebro-spinal meningitis,	<u> </u>
Cholera infantum	4 x x x x
Croup and diphtheria.	
Total zymotic diseases.	5 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 -
Total under five years and over one year.	F 6 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Total under one year.	4 <u>0 27 29 20 0 - 20 1 23 20 20 20 20 20 20 20 20 20 20 20 20 20 </u>
Annual rate per 1,000.	日
Total deaths, all causes.	#
Population (estimated).	25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	-
00	Akron  A' anton  A' anton  Chelloute  Chelloute  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Cheveland  Massilon  Nassilon  Nassilon  Nassilon  Nassilon  Sandasky  Springfield  Sandasky  Springfield  Young-town  Young-town  Young-town  Zanesville
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Cities of 10 000 inhabitants (census 1890) of over.	Akron  A'anton  A'anton  A'anton  Chultothe  Chultothe  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Fast Liverpool  Massillon  Ne with  Massillon  Ne with  Ne with  Ne with  Sand sky  Spring held  Stone with  Sand sky  Spring held  Young count  Totals
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Premature and still birtha	
Total violence.	
Total developmental diseases.	1 1 2 2 2
Pneumonia	0 0 - 0 -
Pleurky.	
Meningitis.	· · · · · · · · · · · · · · · · · · ·
Heart disease.	×× × × × × × × × × × × × × × × ×
Gastritis and peritonitis.	
Convulsions.	
Bronchitle.	
Bright's disease.	
Apoplexia.	<u> </u>
Total local diseases.	
Phthisis pulmonalis	9999
Cancer.	- 101 101 101 101 101 101 101 101 101 10
дізеваея	00000   00   01   00   00   00   00
Total constitutional	
Whooping cough.	<u> </u>
Tonsillits. Typbold fever.	
Scarlet fever.	<del>                                     </del>
Puerperal fever.	
Мевяјек.	
Malarial fevers.	2 2
Dysentery.	
Diarrhesal diseases.	
Cholera morbus.	
Cerebro-spinal meningicia	
Cholera infantum.	
Croup and diphtheria.	31 31 31 31
Total zymotic diseases.	N N N N N N N N N N N N N N N N N N N
and over one year.	7 9
Total under one years  Total under five years	1 m 8
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Annual rate per 1,000.	
Total deaths, all causes.	0000
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Population (estimasted).	(e' ' : ' e ' ' : ' e e ' e : ' e : ' ' e ' : '   xx
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Premature and still births	00 00 88 5 5 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total violence.	D 57584 -1994
Total developmental dis- eaues.	で : 300000000000000000000000000000000000
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Pleurlay.	-01-
Meningitis.	=======================================
Heart di-ease.	n m m - n - n - n 0 + 2 0 1 - c - 8
Gastritls and pertionitis.	
Convulsions.	2 Bangare
Bronchitis.	∞ 4 0 4 0 4 0 0 4 0 0 0 0 0 0 0 0 0 0 0
Brights disease.	
A poplexis.	01 − 20 € 00 1   S
Total local diseases.	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Phthisis pulmonalis.	© 0.72 € 4 4 00 − 60 − 1 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Cancer.	8 m - n n n n r n 3
Total constitutional dis-	@ 888 7 9 4 8 - 6 4 6 - 7 8 8 7 5 5 5 7 7 5 5 5 7 7 5 5 5 7 7 7 5 5 7
Whooping cough.	- k
Typhoid fever.	- : 3 - 6 - : 01 4 8 - 21 - 01 20 - 6 5 -   2
Tonsillitis.	
Scarlet fever.	
Puerperal fever	
Measles,	
lysentery. Malarial tevers	
Diarrhoal diseases.	1000   1000   20
Cholera morbus.	<del></del>
Cerebro-spinal meningitis.	
	9 01
Croup and diphtheria.  Cholera intentum.	
Total zymotic diseases.	4 & £ 52381100 & 8 4 8 8 8 7 3 4 2 3 8 8 1 1 7   £ 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OVET ONE Year.	
Total under five years and	
Total under one year.	
Annual rate per 1 000.	
Total deaths, all causes.	8 8 8 8 5 5 5 8 8 3 3 8 3 3 5 8 3 3 8 8 5 5 8 8 3 3 5 8 3 3 5 8 3 3 5 8 3 5 8 5 8
Population (estimated).	37,568 38,773 38
Cities of 10,0000 inhabi- tants (census 1860) or over.	Akron  (Challecothe  (Charlman)  (Charlman
Cities	Akron  "Challeothe Challeothe Challeothe Challeothe Challeothe Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Cleveland Challeothe East Livery Findlav Mansteld Massillon Newark Massillon Newark Sprinkleld Sprinkleld Steuborvill Tiffin Tiffin Toledo Yourstow Zanesville

Total local diseases.	Total local diseases.
Cholera morbus.  Diarrhosal diseases.  Dysentery.  Dys	Dysentery.  Mesales.  Mesales.  Mesales.  Mesales.  Mesales.  Mesales.  Total local diseases.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Total local diseases.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Mooplexia.  Total local diseases.  Total local diseases.  Total local diseases.  Total local diseases.
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☐ Bright's disease.	Bronohitia  Convulsions.  Gestritis and peritonitis  Heart disease.

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Premature and still births.	%   %\$\$.220
Total violence.	4 5200 %0 5-4 2
Total developmental dis- eases.	
Pneumonia.	# 14 4 1 - 0 - 0 - 0 3 3 0 - 0 : 0 0 0 8
Pleurlay.	
Meningitis.	- %Fee
Heart disease.	<u> </u>
Gastritis and peritonitis.	
Convulsions	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Bronchitis.	
Bright's disease.	0 10 0 10 10 1 - 0
Apoplexia.	0 1-2400- 1- 1 1/2 1 101- 4 1- 18
Total local diseases.	5 87 2 2 4 8 9 1 1 7 8 0 0 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Phthisis pulmonalis.	4777001400100 00 31-10 3   5
Cancer.	8 (2020 ; ; 2) ; (0) ; -07 ; 2
eases.	© :====================================
Total constitutional dis-	
Whooping cough.	
Typhoid fever.	_ : : : : : : : : : : : : : : : : : : :
Scarlet fever. Tonsillitis.	4
Puerperal fever.	
Мецыек.	
Malarial fevers.	
Dysentery.	9
Distribueal diseases.	- <del> </del>
Cerebro-spinal meningitis. Cholera morbus.	
Cholera infantum.	433
Croup and diphtheria.	8 8 4 4 5 5 - 8 - F - F - F - 9 9 9 8 8 8
Total zymotic diseases	- c c c c c c c c c c c c c c c c c c c
OVET ONE YEAR	\$ = = - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Total under one year, Total under five years and	န်းမြန်မာ့ အမေ အမေ အမေ အမေ အမေ အမေ အမေ မရှိသူက မရို
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Annual rate per 1,000.	○ 8441034-344-0-10061006-0-1006-
Total deaths, all causes.	8
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Population (estimated).	8 - 6 6 5 7 - 4 3 5 5 5 5 5 6 5 6 5 6 5 6 5 6 5 6 6 5 6
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Cities of 10 000 inhabi- tants (census 1890- or over.	Veron. Canton. Canton. Hillicothe. Hillico
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8	Premature and still-births.	
= -2	Total violence.	
<u> </u>	eases.	
NOVEMBER,	Pneumonia.	
	Pleurisy.	
C	Meningitis	.00
(TH	Heart disease.	
MONTH OF	Gastritis and peritonitis.	
	Convulsions.	
DURING	Bronchitle.	
	Bright's disease.	
OHIO,	Apopiexis.	
	Total local diseases.	10000   10000400   100   10000000   100   10000   1
CITIES OF		
ILI	Phthisis pulmonalia.	200
0	евьев.	:0::00::00::00::00::00::00::00::00::00
FOLLOWING	Whooping constitutional dis-	
3	T. phoid tever.	
<u> </u>	Tonshittis	
ξ.	Scarlet fever.	
THE	Puerperal fever	
Ę.	Measles.	
	Malnifal fevers.	
Z	Dysentery.	
or.	Diarrhœal diseases.	
E E	Сројега тограз.	
5	( erebro-spins) meningitis.	
THEIR CAUSES,	Cholera infantum.	
FIR	Croup and diphtheria.	_ 18
TH	Total symotic diseases.	980 980-00 -t- 0 -+ 0 0 +4 0 0
Ę.	Total under five years and over one year.	4 3 6 8 1 1 5
<b>≺</b> ∹	Total under one year.	<u> </u>
rite	ross: I tod cant manner	<b>8</b> 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
DEATHS, AND	Annual rate per 1,000.	1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OF D	Total deaths, all causes.	200 21-022 2222222 22 22 22 22 22 22 22 22 22 2
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R.	Population (estimated):	:Ico :vooca : [xouxooxiic   xcccoc   c   x
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ABSTRACT OF THE REPO	Cities of less than 10,000 inhabitants. Census 1860.	*Alliance Bellate. Bellate. Bellate. Bellate. Special special
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THEIR CAUSES, IN THE FOLLOWING CITIES OF OHIO,	serses.
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Premature and still births.	rc 200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	15
Total violence.	0 :-00004 :0	18
Total developmental diseases.	9,4	135
Pneumonia.	r 24 2 r 2 r 2 r 2 r 2 r 2 r 2 r 2 r 2 r	188
Pleurisy.	© № − 0.24 :	
Meningitis.		4
Heart disease.	<u> පිටීගය                                    </u>	158
Gastritis and peritonitis.		88
Convulsions.		18
Bronchitis.	"	188
Внерс, в фізевае.		18
Apoplezia.		1.2
Total local diseases.	87-	8
Phthisis pulmonalis.	21 : 15-60-00 :01 : 00-001 : '01 :-01 :01 :01 :-01 :01 :-01 :01 :-01 :01 :-01 :01 :-01 :01 :-01 :01 :01 :01 :-01 :01 :01 :-01 :01 :01 :01 :01 :01 :01 :01 :01 :01 :	22
Свисет		%
Total constitutional diseases.	<u> </u>	88
Mpoublug cough.	-       -	<u> </u> w
Typhoid fever.		18
Tonsillitis.		1 :-
Scarlet tever.	<del></del>	-
Measles. Puerperal fever.		T:
Malarial fevers		14
Dysentery.		100
Diarrhoad diseases		107
Cholera morbus.	- 2- 12- 11- 11- 11- 11- 11- 11- 11- 11-	10
Cerebro-spinal meningitis.		<del> </del>
()holera infantum.	- 326-x 243-46	<u> </u>
Croup and diphtheria.	& 558 <u>1-1916998888888675-87888</u>	122
Total zymotic diseases.	8 : £86.012431- 31 - 30 : 51-0	181   25
Total under five years and	- : £8504000100 00000800	·
Total under one year.	!:	2
Annual rate per 1.000.	98	13.0
Total deaths, all causes.	8 22288282135187788222188	1,470
		<u> </u>
Population (estimated .	25.56 25.56	1,364.703
Cities of 10,000 inhabitants eensas 1890 or	Akron  ('anton ('libeothe ('libeothe ('leveland ('leveland ('leveland ('leveland ('leveland ('leveland ('leveland ('leveland ('leveland ) Bast Liverpool. Bast Liverpool. Bast Liverpool. Bast Liverpool. Bast Liverpool. Bast Liverpool. Bast Liverpool. Bast Liverpool. Final Massield Massield Massield Massield New ark Portsmouth Sandusky Springfield 'Timba. Toldedo. Toldedo. Zanesville	Totals.

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Premature and still birtha.		2
Total violence.		0
Cabes, testipoliticas cus-		7
Pneumonia. Total developmental dis-	93 1940 193 1 1 1 1 1 1	<u>c</u>
Pleurisy.		
Meningitis		30
Heart disease.		77
Gastritis and peritonitis.		•
Convulsions.		*
Bronchltis.		מי
Bright's disease.		۵
Apoplexia.		
Total local diseases.	© 4 € C 60 − 4 ∞ 50 − 1 0 € 50 € 50 € 50 € 50 € 50 € 50 € 50	
Phthisis pulmonaita.		93 
Свисет.		_
Total constitutional dis-		<del>-</del>
M pooblug congr		20
Tonsillitis. Typhold fever.		_
Scarlet fever		_
Puerperal fever.		_
Malarial fevers Measles.		=
Dysentery.	- i : : : : : : : : : : : : : : : : : :	
Diarrheal diseases.		_
Cholera morbus.		25
Cholera infantum. Cerebro-spinal meningitia.		=
Croup and diphtheria.		2
Total zymotic diseases.	<u>- ∞ - 4 - 070 200 - 200 - 4 - 1</u>	Z
OVET ONE JEST.	03 03 03 03 5	13
Total under five years and	4 6	2
Annual rate per 1,000.	27.15.15.25.25.25.25.25.25.25.25.25.25.25.25.25	
000 t non other found A		
Total deaths, all causes.		717
	11.291 7.734	<u> </u>
Population (estimated).	කටුරුමේ   කටුනුකටුමන් දි තුද්දටුම දි	3
Cities of less than 10,000 inhabitants. Census 1860.	*Alliance. Bellaire. Buckrist Buckrist Buckrist Buckrist Buckrist Buckrist Cogliance Fostoria Fremont Gallipolis Gallipolis Gallipolis Gallipolis Gallipolis Marchan Marchan Marchan Marchan Marchan Marchan Marchan Marchan Marchan Marchan Marchan Marchan Marchan Warren Warren Warren Warren Warkhan Warkhan Warkhan Warkhan Warkhan Warkhan Warkhan Warkhan	Totals
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986	Premature and still births.	æ
18	Total violence.	23
DEC.	Total developmental dis-	<b>-</b> €
	Pneumonia,	-
ING	Pleurisy	
CITIES IN OHIO, DURING YEAR ENDING	Mentugitis	=
AR ]	Heart disease.	31
YE	Gastritis and pertionitis.	-9
ING	Convulsions.	22
DO BE	Bronchitis.	4
O, I	Bright's disease.	4
ОНІ	A poplexia.	17
Z.	Total local diseases.	<del>5</del>
TES	Phthisis pulmonalla.	88
CIT	Свпсет.	8
ING	Total constitutional dis-	28
ΜQ	Whooping cough.	
OLL	Typhold fever.	<b>0</b> 0
E4	-slillisnoT	=
H	Puerperal fever.	:
z	Measles.	_
·.	Malarial fevers.	-r <u>c</u>
SE	Dysentery.	
CAU	Diarrhœal diseases.	
ä	Cholera morbus.	
<u> </u>	Cerebro-spinal meningitis.	
TE	Cholera intantum	- ±
12	Croup and diphtheria.	Ö
S.	Total aymotic diseases.	દ્ધ
ATH	Total under five years and over one year.	17
DE,	Total under one year.	ଛ
RIS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING	Annual rate per 1,000.	10.67
$\cap$	Total deaths, all causes.	07
ABSTRACT OF THE REP	Population (estimated).	37,506
OF	O Lo	A kron
E	Cities of 10,000 mhabitants census 180) or over.	:
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Premature and still births.	2 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Total violence.	8 8 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Total developmental dis- eases.	8 - 0 8 1 2 8 5 0 0 8 2 8 5 0 0 8 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Pneumonia.	7
Pleurisy	& & & & & & & & & & & & & & & & & & & &
Mentugitis	11 128 25 178 178 178 178 178 178 178 178 178 178
Heart disease.	28 28 28 28 28 28 28 28 28 28 28 28 28 2
Gastritis and pertionitis.	& & & & & & & & & & & & & & & & & & &
Convulsions.	<u> </u>
Bronchitls.	4 128074-1401 4045000001 2
Bright's disease.	4 :- 8 2 2 3 3 3 4 5 8 5 7 8 2 8 3 8 4 5 6 5 6 4
Apoplexia.	7 : 0 5 6 E E - 0 1 9 0 0 9 4 0 4 1 0 - 0 8 4 0 1 2
Total local diseases.	4 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Phthisis pulmonalla.	2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 =
Свпсет.	8 4 5 4 6 5 4 6
Total constitutional dis-	3 <u>28.88.88888888888888888888888888888888</u>
Мрооріпв солвр.	108 21 1 28 23 21 1 108 20 21 21 21 20 20 20 20 20 20 20 20 20 20 20 20 20
Typhold fever.	8 9 5 4 4 8 1 8 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Tonsillitis	- : × : : : : : : : : : : : : : : : : :
Puerperul fever. Searlet fever.	- 1-65 - 1 1000 10 1-0 1- 10 1 1 8 1 1 2 2 3 1 - 1 1 1 1 1 1 2 1 3 2 3 1 4 1 1 1 8
Measles.	218-0
Mularial fevers.	TO 100 100 100 100 100 100 100 100 100 10
Dysentery.	4 0 c 8 6 c
Diarringal diseases.	
Cholera morbus.	
Cerebro-spinal meningitis.	8 98448 8514 8 5 8 5 8 5 6 8 5 6 6 6 6 6 6 6 6 6 6 6
Cholera intantum	9 5554483000E8151888844818   8
Croup and diphtheria.	1 1 1 1
Over one year.  Total symotic diseases.	
Total under five years and	
Total under one year.	8 1-3-4-2 4-2 2-3 2-3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Annual rate per 1,000.	0 528 52 52 52 52 52 52 52 52 52 52 52 52 52
Total deaths, all causes.	18.33
Total details adjust later	0.000000000000000000000000000000000000
Apparente el normo de =	25.5.5.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0
Population (estimated).	
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Cities of 10,000 unhabitants (census 1890) or over,	Akren  (**auton  (**bilicathe  (**Charleinati, **)
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\*No report. †Reports not complete.

Premature and still births.	-520 -50	200001	: : മയമയയയെ ഇ — 4	167
Total violence.	610C-4 4 6000		<b>∞™∞</b> ∞∞40∞∞	85
Total developmental dis-		<u>:</u>	4000045	8
Preumonts.	9669-	e-500000	F-014220000000	186
Pleurlay.	61 m	7   -	īTTT       <sup>-</sup> TT	23
Meningitle.		A 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>200</b> − 01 01 − 02	8
Heart disease.	-888-680-69	800 64.10	9. mg 25 m 2 m 2 m 2 m 2 m	8
Gastritis and peritonities.	-401-0140 8-	4-01 5000	@ ## ## ## ## ## ## ## ## ## ## ## ## ##	8
Convulsions.	-680 :-00	3) (6)01	4 4 -01-01	28
Bronchitis.	-400 -000-	4 - 1000 -	40101004	\$
Bright's disease.		48844 08	- 44	7.7
Apoplexis.	4400 0-460	∞4	। । । । । । । । । । । । । । । । । । । ।	83
Total local diseases.	7875.8124Z	<b>44888</b> 2488	<u>+84825982</u>	1831 1831
Phthisis pulmonails.	1			188
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Total constitutional dis-	888 218 218 21 21 21 21 21 21 21 21 21 21 21 21 21	85878052		\$
Whooping cough.	9000000-000	10.44.01 00 10.44.01 00	4-4 8r-40	103
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Dysentery.		9: 10: 10: 10:	4   1   51	<u>. 3</u>
Cholera morbus.  Diarrhœal-diseases.		-m		3.
Cerebro-spinal meningitls.			: i.4.— :   ww ist	3
Cholera infantum.	4000 000	:0162-60-8	-277	15
Croup and diphtheria.	10101010101010101010101010101010101010	_== 22 0 3 4 0	4 W 61 51 51 51 51 51 51 51 51 51 51 51 51 51	쯢
Fotal symotic diseases.	-8888-12789	= 88	3311258488	:ह
Total under five years and over one.	2 E 4 E 5 31 L C	-3 4000	4 10 - 30 30 31	13
Total under one year.	- H & 51 4 & 9 9	~3~%¥	22 42   1	13
Annual rate per 1,000.	28 28 28 24 24 24 28 28 28 28 28 28 28 28 28 28 28 28 28	121111111 1211111111	5255 65 25 57 57 57 57 57 57 57 57 57 57 57 57 57	; <del>=</del>
Total deaths, all causes.	9.44 8.55 15 4 8 8 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	<u> </u>	3:13:3:15:E1:E	17.
Population (estimated).	10.23 11.29 11.29 11.29 10.01	8.045 10.089 13.189 13.889 10.588 10.588 10.598 10.598	1.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	232,391
Cities of less than 10,000 inhabitants (census 1890).	Hallance Buchrus Chrelwille Herlance Thellance Thelware Festoria Fernoul Galloui.	Archival Marcita Marcita Marcita Marcita Middettown Mid	North Control of the	Totals
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\*No report. \*Reports from Alliance for 3 months; Defiance, 2 months; Deliaware, 11 months; Greenville, 1 month; Mt. Vernon 11 months.

## EXECUTIVE DOCUMENTS.

Premature and still births.	
Total violence.	<del>-     -                                </del>
eases.	
Pneumonia. Total development dis-	01-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1 1-1
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Pleuriay.	
Meningitis.	
Heart disease.	
Gastritis and peritonitis.	
Convulsions.	
Bronchitls.	
Bright's disease.	
Apoplexia	
Total local diseases.	704 40101-4
Phthisis pulmonalis.	
eases. Cancer.	
Total constitutional dis-	
Whooping cough.	
Tonsillitis. Typhoid fever.	
Scarlet fever.	
Puerperal fever	
Meusles.	
Malarial fevers.	
Dysentery.	
Diarrhual diseases.	
Cholera morbus.	
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Cholera infantum.	0 N N N N N N N N N N N N N N N N N N N
Croup and diphtheria.	
Total zymotic diseases.	
Total under five years and over one year.	
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Annual rule per 1,000.	<b>。                                    </b>
Total deaths, all cases.	
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The following places report no deaths during January: Ada, Centerburg, Enon, Hillsboro, Morristown, Murray City, Patterson, Tippecanoe City.

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Premature and still births.	<mark>                               </mark>
Total violence.	(a) 1 (a) 1 (b) 1 (c) 1
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Pneumonia. Total developmental dis-	ee 00
Pleurlay.	
Meningitis.	
Heart disease.	
Gestritis and peritonitis.	
Convulsions.	
Bronchitis.	
Bright's disease.	
Apoplexia.	n
Total local diseases.	NN 10 N − −N− − −0−000− − −−− 0000 −−−00
Phthisis pulmonalis.	
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Total constitutional dis-	
Typhoid fever. Whooping cough.	
Tonsillitis.	
Puerperal fever.	
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Dysentery. Malariul fevers.	
Cholera morbus. Diarrhoeal diseases.	
Gerebro-spinal meningitis.	
Cholera intantum.	
Croup and diphtheria.	
Total aymotic diseases.	
Total under five years and over one year.	
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Total deaths, all causes.	
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Population estimated.	21 21 21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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The following villages report no deaths during February: Centerburg, Hicksville, Hillsboro, Patterson, Summerfield,

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Premature and still births.	
Total violence.	3 1 1 1 1 8 1 1 8 1 1 1 1 1 1 1 1 1 1 1
Total developmental dis- eases.	
Pneumonia.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Pleurisy.	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Meningitis.	
Heart disease.	82 83
Gastritis and pertionitis.	
Convulsions.	
Bronehitis.	
Bright's disease.	
Apoplexia,	· · · · · · · · · · · · · · · · · · ·
Total local diseases.	4-2040- 0 5-200 3-1-04-0000- 35
Phthisis pulmonalis.	C1
Свисет.	
Total constitutional dis-	00
Whooping cough.	<u> </u>
Typhoid fever	
Scarlet fever. Tonsillitia.	
Puerperal fever.	
Measles.	
Malarial fevers.	
Dysentery.	
Distribosal diseases.	
Cerebro-spinal meningitis.	
Cholera intantum	
Croup and diphtheria,	77001 - 0 - 1 - 1 - 1 - 1 - 1 - 1
Over one year. Total zymotic diseases.	80 T
Total under five years and	
Total under one year.	80 III II II II II II II II II II II II I
Annual rate per 1,000.	8.8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Total deaths, all causes.	
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Population (estimated).	11.53 + 4.50 + 5
Villages.	Ashtabula. A Hens Heifontune Bryan. Bryan. Bryan. Bryan. Graftz. Carliage. Carthage. Carthage. Conneaut.

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New Philadelphia Now Straitwille North Amherst. Norwood. Oberlin Palneswille Pleasant Hill Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding Revenus Redding South Charleston Summerti-dd South Charleston Chicon City Varianskoneta Wilmington Wyouling	Totals

The following villages report to deaths during March: Ada, East Palestine, Mingo Junction, Morristown.

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Premature and still births.	
Total violence.	
Total developmental dis- eases.	
Pneumonia.	- 3 3
Pleurisy.	α
Meningitis.	
Heart disease.	0 0
Gastritis and pertitonitis.	
Convulsions.	<del>- , ,                                 </del>
Bronchitle.	
Bright's disease.	
Ароріедів,	
Total local diseases.	4-000400- 00 10-000 00-1-00
Phthists pulmonalis.	C)
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Total constitutional dis- eases.	σ ο ο ο ο ο
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Tonsilltis. Typhoid fever.	:
Puerperal tever.	
Malariai fevers. Measles.	
Dysentery.	
Cholera morbus. Diarrhœal diseases.	
Cerebro-spinal meningitis.	
Cholera infantum	
Oroup and diphtheria.	-4001 - 0 - 1 - 0 - 0 - 0 - 0 - 0 - 0 - 0
Over one year. Total zymotic diseases.	
Total under five years and	
'Yotal under one year.	
Annual rate per 1,000.	24.25.26.26.26.26.26.26.26.26.26.26.26.26.26.
Total deaths, all causes.	F-xx6F-45146893188-518-5144816448644884F
	48.3
Population (estimated).	以近年中央上部上 名称中部中的公司公司的工作的总统会公司的第三人称单分的公司 计记录器 计可以记录器 计图像 医二甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基
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New Philadelphia New Etraitaville North Amherst. Norwood. Norwood. Norwood. Norwood. Norwood. Norwood. Paleasant Hill. Pleasant Hill. Rading. Reading. Reading. Republic. Republic. Republic. Shelby. Sidney. Sidney. Summerti-id. Tippecanoe City. Unichaville. Unichaville. Unichaville. Wadsworth. Wadsworth. Wadsworth. Wadsworth. Wadsworth.	Totals

The following villages report to deaths during March: Ada, East Palestine, Mingo Junction, Morristown.

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Total violence.	
Total developmental dis-	
Pneumonia.	
Pleurisy.	
Meningitis.	
Heart disease.	
Gastritle and peritonitis.	
Convulsions	
Bronchitis.	
Bright's disease.	
Apoplexia.	
Total diseases	<b>∞ ∞3,∞∞ − 3,∞∞∞∞∞− ∞∞∞−−∞∞∞</b> − −∞∞∞
Phthisis pulmonalis.	01 - 02
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Whooping cough. Total constitutional dis-	
Typhoid lever.	
Tonsillitis.	
Scarlet fever.	
Puerperal fever.	
Measles.	
Malarial fevers.	
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Cholera mornus	
Cerebro-spinal meningitis.	- : <del>: : : : : : : : : : : : : : : : : :</del>
Cholera infantum.	
Croup and diphtheria.	
Total aymotic diseases.	
Total under five years and over one year.	
Total under one year.	
Annual tace per 1,000.	\$ 5 5 5 7 5 6 7 5 6 7 5 6 7 5 7 5 7 5 7 5
Annual rate per 1,000.	<u> </u>
Total deaths, all causes.	-
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Population (estimated),	್ಟ್ ಪ್ರತ್ನಕ್ಕಳು ಆಗಳ ಕಟ್ಟಾಗಿ ಕಟ್ಟಿಯ ಪ್ರವಾಣದ ಪ್ರತಿ ಕಟ್ಟಿಕೆ ಕಟ್
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The following villages report no deaths during April: East Palestine, Marysville, Mingo Junction, Morristown, New London, Summerfield, Unrichsville Wyoming.

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Premature and still pirths.	
Total violence.	2
Total developmental dis-	N
Pneumonia.	- 30 1 1
Pleurisy.	
Meningitis.	00 -
Heart disease.	
Gastritis and peritonitis.	
Convulsions.	2
Bronchitia	
Bright's disease.	**************************************
Apoplexia.	
Total local diseases	<u> </u>
Phthisis pulmonalis,	ou - ou
Сапсет.	-ol No ol -
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Whooping cough. Total constitutional dis-	
Typhoid fever.	
Scarlet fever. Tonsillitis.	
Puerperal fever.	
Меаяјез,	
Malarial fevers.	
Discrinces discases.	1 <del>-11-1</del>
Cholera morous	
Cerebro-spinal meningitis.	
Cholera infantum.	
Croup and diphtherla.	
Total zymotic diseases.	
Total under five years and over one year.	
Total under one year.	*       *           *
Annual rate per 1,000.	\$255 # 477 # 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	<u> </u>
Total deaths, all causes.	
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Population (estimated).	01 5104.400 No. 01 11 4 1 4 10 10 11 10 10 10 10 10 10 10 10 10 10
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Villages.	Jace Tace
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The following villages report no deaths during April: East Palestine, Marysville, Mingo Junction, Morristown, New London, Summerfield, Uhrichsville Wyoming.

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Premature and still births.	
Total violence.	8
Total developmental diseases.	
Pneumonia.	
Pleurisy.	
Meningitis.	
Heart disease.	
Gastritls and peritonitis.	<del></del>
Convulsions.	· · · · · · · · · · · · · · · · · · ·
Bronchitle.	
Bright's disease.	
A poplexia.	
Total local diseases.	0,40,044-0 0,4 0,44 0,44 0, 0 140 14
Phthlais pulmonalis.	
Cancer.	63 163 1-
diseases	<u> </u>
Whooping cough. Total constitutional	
Typhoid fever.	
Searlet fever. Tonsillitis.	
Puerperal fever.	
Measles.	
Malarial fevera.	
Diarrhœal diseases. Dysentery.	
Cholera morbus.	
Cerebro-spinal meningitis.	
Cholera intantum.	
Croup and diphtheria.	
Total zymotic diseases.	8 1
Total under five years and over one year.	
Total under one year.	63 - 63 - 63
Annual rate per cent.	2002 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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Total deaths, all causes.	·
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The following villages report no deaths during May: East Palestine, Hicksville, Lisbon, Morristown, Murray City, North Amherst, West Liberty, Wooning.

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The following villages report no deaths during June: Centerburg, Hillsboro, New Straitsville, Summerfield.

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Mingo Junctio Neisoville New Straitsty New Straitsty North Ambers Norw ood	Mingo Junction Nepoleon Nesonville New Philadelphia New Philadelphia North Amberst North Amberst North Amberst North Amberst North Amberst North Amberst North Amberst North Amberst Paleasant Hill Pebbles Pleasant Hill Pleasant	Total

The following villages, report no deaths during July: Bridgeport, Centerburg, Hillsboro, Morristown, Murray City, Sheiby.

ABSTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, IN THE FOLLOWING VILLAGES OF OHIO DURING MONTH OF AUGUST, 1866.

## EXECUTIVE DOCUMENTS.

Premature and still birtha	<u> </u>
Total violence.	
Total developmental dis-	
Pneumonia.	
Pleurisy.	
Meningitis.	<del>- i                                   </del>
Heart disease.	
Gastritis and pertionitis,	
Convulsions.	
Bronchitle.	
Bright's disease.	
Apoplexia.	
Total local diseases.	
Phthisis pulmonalis.	8 8 - 8
Cancer.	<del></del>
Total constitutional dis-	4 0-0 . 0-00 0 - 0 -
Whooping cough.	
Typhold fever.	
Tonsillitis.	
Scarlet fever.	<u> </u>
Puerperal fever.	
Measles.	
Malarial fevers.	
Dysentery.	: : : : : : : : : : : : : : : : : : : :
Diarrhual diseases.	: : : : : : : : : : : : : : : : : : : :
Cholera morbus.	
Cerebro-spinal meningitis.	
	2) (4 : : : : : : : : : : : : : : : : : :
Cholera intantum.	
Croup and diphtheria.	2) : 20 c c c c c c c c c c c c c c c c c c
Over one year. Total zymotic diseases.	N::::
Total under five years and	
Total under one year.	<u> </u>
Annual rate per 1,000.	\$\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Total deaths, all causes.	
ii dinne in andi	
Population (estimated).	
Villages.	Ada Ashley Ashley Ashley Ashley Ashley Ashley Ashley Bridgerontaine Bridgerort Bridgerort Grathale Comeant Comeant Comeant Cydhoka Falls Bridgerort Franklin Franklin Franklin Gread Gread Gread Gread Gread Hickville



Manchester         2.385         Packed         1         1         2         2.385         1         1         1         2         1		•
Manchester         2,383         5,560         1         1         2         1         1         2         1         1         3         8         1         1         1         2         1		
Manchester   2,888   25.60   1   1   2   2   2   2   2   2   2   2		2
Manchester         2.83         5.846         1.25         2.56         1.1		=
Manchester         2.835         5.25.60         1         2         2         2.84         1		-
Manchester         2.883         5 25.60         1 2 2 2         1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-
Manchester         2.83         25.60         1		22
Manchester         2.83         5.5.60         1         1         1         3         8           Maryaville         8.34         7.24.66         1.24.66 <th></th> <th>8</th>		8
Manchester         2,333         B, 25,60         1		<b>3</b>
Manchester         2.883         5.560         1         2         2         2         2         2         3         4		81
Marchester         2333         52.60         12.13         11.11		4
Manchester         2.33         5.25.60         1	ea	15
Manchester         2.383         5.5.60         1	<b>9-940 80000</b> - 7 .0401-4 0140	<b>&amp;</b>
Manchester         2.383         5.560         1         2         1		88
Manchester         2.33         5.5.60         1	<del>-</del>	2
Manchester         2,383         5,26,50         1         2		<u> </u>
Manchester         2.383         5 25.50         1		<u> </u>
Manchester         2.883         5.5.60         1         2.5.60         1 <td></td> <td>1 2</td>		1 2
Manchester         2.333         B. 26.60         1 2.466         2.466         1.278         1.2486         2.466         2.466         2.466         3.1471         1		
Manchester         2.333         6 25.60         1         2         2         2         2         2         3         3         4         8         4         8         8         4         8	<del>- ; , , , , , , , , , , , , , , , , , , </del>	
Manchester         2.333         6 25.50         1         2         3         4         3         3         3         4         3         3         4         3         4         3         4         3         4		9
Manchester         2.333         5 25.50         1 2.4 85         9         2           MacConnetaville         1.978         1.4 87         1         1         1           Mutracy Junction         2.618         1.4 87         1         1         1           Mutracy Junction         2.618         1.679         1         1         1           New Pooleon.         2.618         1.629         2.1         1         1           New Pillsdelphia         5.736         6.1289         1         1         1           New Pillsdelphia         2.735         4.50         1         1         1           New Pillsdelphia         2.736         4.50         1         1         1           North Amberst.         7.705         3         4.50         1         1         1           North Amberst.         5.286         8.88         8.83         1         1         1           Pataskala         8.90         8.00         8.00         1         1         1           Ravenia         8.438         4.88         1         1         1         1           Reading         8.610         4.88         4.88         2		1 :
Manchester         2383         5 5.50         1           Maryaville         1 978         2 18.13         9         2           Mingo Junciville         2,408         3 14.87         1         1           Muray Conneiville         2,408         3 14.87         1         1           Napoleon         2,518         1 4.87         1         1           New Philadelphia         2,785         4 17.26         1         1           Now Spoleon         2,785         4 17.26         1         1           Now Spoleon         1,715         1         1         1           Now Spoleon         1,715         1         1         1           Now Spoleon         1,725         1         1         1           Paraskala         8,88         1         1         1           Pleasant Ridge         1,027         4,88         1         1           Ravenna         3,487         4,118         2         2           Ravenna         3,487         4,118         2         3           Sheby         2,488         4,648         3         3           Sheby         4,638         4,648         4,		8
Manchester         2.33         6 25.50         9           Macyaville         1.978         2.18.66         1.487         1           Mutray City         2.618         1.487         1         1           Mutray City         2.618         1.487         1         1           New Policion.         2.618         1.25.9         1         1           New Policion.         2.618         1.25.9         1         1           New Policion.         2.618         1.25.9         2         1         1           New Policion.         2.618         2.25.9         1         1         1           New Policion.         2.676         6.126         2         1         1           New Policion.         2.678         1.735         1         1         1           North Amberst.         7.506         1.735         1         1         1           Oberlin.         5.28         8.83         1         1         1           Patastala.         8.93         8.83         1         1         1         1           Ravenia.         8.43         4.83         1         3.84         4.83         1		=
Manchester         2.333         6.250           Maryaville         1.978         1.218           Mad Connectedine         2.468         1.479           Murray City         2.518         4.77           New Pulsadelphia         5.746         6.12 52           New Pulsadelphia         2.782         4.17-52           Norb Amberst         7.500         8.483           Norb Amberst         7.500         8.483           Norwood         7.500         8.483           Pataskala         1.983         8.201           Pataskala         8.401         4.838           Pataskala         8.401         4.838           Pataskala         8.401         4.838           Ravenna         8.401         4.838           Republic         5.74         4.118           Sheby         8.204         4.18           Sheby         8.204         4.18           Chrichwille         4.55         1.401           Minington         4.55         1.607           Minington         4.55         1.607           Minington         4.55         1.607           Minington         4.55         1.607      <		86
Marchester         2,383         6,250           Marysville         1,978         1,818           Midtago Junction         2,468         1,871           Murray City         2,518         4,79           Nebonville         2,468         1,879           New Philadelphia         5,749         6,1252           New Philadelphia         5,776         6,1252           Norwood         2,775         4,175           Norwood         2,782         4,175           Pataskala         1,755         1,700           Pataskala         800         1,833           Pataskala         800         1,993           Pataskala         800         1,993           Ravenus         3,433         4,1418           Ravenus         3,433         4,1418           Ravenus         3,433         4,1418           Sheiby         2,043         7,4118           Sheiby         2,043         7,4118           Keptulic         3,548         4,1418           Sheiby         2,043         7,4118           Minington         4,555         1,448           Milaington         4,555         1,977		22
Manchester   2,383   1,25	- 00 - 1 - 2 - 2 - 4 1	4
Marchester   2,383   Maryaville   1,978   MacConceiverille   1,978   Maryaville   1,978   1	<b>売売 34 4 4 8 8 8 4 6 4 8 8 8 8 8 8 8 8 8 8 8 </b>	
Manchester   2,335     Maryaville   1,978     Murray City   2,518     Murray City   2,618     Neisonville   2,618     New Straitsville   5,735     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,715     North Amberst   1,286     Pataskala   800     Pataskala   800     Pataskala   800     Pataskala   800     Pataskala   800     Pataskala   800     Reading   8,404     Republic   8,404     Tippecanne City   1,494     Tippecanne City   1,494     Tippecanne City   1,494     Tippecanne City   1,494     Withinkton   1,237     Withinkton   3,238     Totals   1,868	## ## ## ## ## ## ## ## ## ## ## ## ##	
Manchester   S.     Maryaville   MacConneiville   S.     Mingo Junction   S.     Mingo Junction   S.     Maryav City   S.     Napoleon   S.     New Philadelphia   S.     New Philadelphia   S.     New Philadelphia   S.     New Philadelphia   S.     North Amberst.   J.     North Amberst.   J.     North Amberst.   J.     North Amberst.   J.     Palaskala   S.     Palaskala   S.     Palaskala   J.     Palaskala   J.     Palaskala   J.     Palaskala   J.     Palaskala   J.     Palaskala   J.     Palaskala   J.     Palaskala   J.     Palaskala   J.     North Medin   J.     S.     S.     C.     C.     C.     C.     C.     C.     C.     M.   M.		l
Marchester Maryaville Mingo Junction Mingo Junction Marchaelen Nebonville New Philadelphis New Straitsville Norw Derlin Norwood Norwood Norwille Norwille Norwood Norwille Palaskais Palaskais Palaskais Palaskais Palaskais Ravenna Radine Ravenna Radine Ravenna Radine Republic Shaw nee Shaw nee Shaw nee Shaw nee Shaw nee Shaw wee Shaw wee Shaw wee Now wee Now was word Was word Was word Was word Was word Was word Was word Was word	28.85 29.85 20	8,952
Maryaville Macyonelsville Mingo Junction Murray City Murray City Napoleon Nekonville New Straitsville Norwood Oberlin Orrwille Patnesville Patnesville Patnesville Patnesville Patnesville Ravenua Reading Rea		61
Maryaville MoConnelville Mingo Juncholne Mingo Juncholne Murray City Napoleon New Pinladelphis New Biraisville New Biraisville North Amberst. North Amberst. North Amberst. North Amberst. North Amberst. North Amberst. North Amberst. North Amberst. North Straitsville Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Pataskala Ravena Ravena Ravena Ravena Ravena Ravena Ravena Ravena Ravena Ravena Ravena Ravena Ravena Rading Republic Sidney Chrichsville Chrichsville Chrichsville Chrichsville Chrichsville Wighlangton Wighlangton		!
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Mancheste Marysville. MocConnels Mingo June Mutray Cit Napoleon. New Phila New Phila New Strai North Amb Republic. Shelby Shelby Shelby Tippecant City. Witchwillt Witchwillt Witchwillt Witchwillt Witchwillt Witchwillt Witchwillt Witchwillt Witchwillt	ville ville	
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	S. E. Doo 23	

The following villages report no deaths during August: Hillsboro, Morristown, St. Bernard, Summerfield, Wyoming.

edrild	Premature and still	x  :  <sup>®</sup>    <sup>7</sup>    <sup>7</sup>	•
	Total violence.	L	
SEPTEMBER,	Total developmenta diseases.	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Pneumonia.		1
SE	Pleurisy.	1	Π
	Meningitis		П
TH	Heart disease.	1	П
S sitia	Gastritts and pentor	5 - <u>                                    </u>	Ħ
g	Convulsions		Ti
<b>H</b>	Bronchitis.		Π
ğ	Bright's disease.	- <del>'- - - - - - - - - - - - - - - - - - -</del>	Ħ
H -	Apoplexia.	- <del>,                                    </del>	Τİ
£	Total local diseases		<u>*</u>
SE	Phthisis pulmonalis.		<u>-</u>
FOLLOWING VILLAGES OF OHIO DURING MONTH OF	Сапсет.	- <del> - - - - - - - - - - - - - - - - - - </del>	Ti
	enses	0 0 0 0 0 0 0 - 0	<del>-</del>
G -sib [	Whooping cough Total constitutions		Ti
X .	Typhoid fever.		<del>!!</del>
<b>♦</b>	Scarlet fever. Tonsillitis.		Ħ
3	Puerperal fever.		T:
<u> </u>	Measles.		1 1
8	Malarial fever.		<u></u>
THE	Dysentery.		÷
Z	Diarrhoeal diseases.		끆
,	Cerebro-spinal meni Cholera morbus,		Ť.
St stripe	Cholera infantum.	/ : :-::-::-:::::::::::::::::::::::::::	-
AND THEIR CAUSES.	Croup and diphther		<del>√=</del>
Res.	Total zymotic disea	- : : : 0 = : × : 0 : : 0 : : × 0 : 0	<del></del>
	Over one year.	×	==
Sbas sr	Total under one yea Total under five yea		
		######################################	8₩
TH.	On, I rate per 1,00		
OF DEATHS,	Total deaths, all car		
<u> </u>			38
ë d∘. ⊢ .ºbə	Population (estimat	1 ರು ರಾಜಕೃತ್ವಗಳ ಬರುವಲ್ಲಾಗುತ್ತಣ್ಣ ಕ್ರಮ ಬರು ಅ <b>ಜ್ಞಾಗು ಜಯ್ಯ</b> ಬರುವ ಬರುವಲ್ಲಿ ಕ್ರಮಗಳ ಕ್ರಮಗಳ ಕ್ರಮಗಳ ಬರುವುದೆ ಅಭಿವರ್ಷ ಪ್ರಭಾವಿಗಳ ಕ್ರಮಗಳ	r 00
ABSTRACT OF THE REPOI	Villages.	Ada Ashlos Ashlos Ashlos Ashlos Ashlos Bedgerport Bedgerport Bronkyn Bronkyn Bronkyn Granhare Colment Coshoren Coshoren Coshoren Est Palestine Frankfort Fra	Lynchburg
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Premature and still births.	
Total violence.	60
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Pneumonia. Total developmental dis-	
Pleurlay.	
Meningitis.	
Heart disease.	: :0: : : - : . : : : : : : : : : : : : : :
Gastritis and peritonitis.	
Convulsions.	
Bronchitle.	
Brights disease.	
А рорівхів.	
Total local diseases.	- 000 0 -0-4001-0 0- 00
Phthisis pulmonalia.	
Овпсет.	
Cases	63 10
Toral constitutional dis-	
Tonsillitis. Typhoid fever.	
Scarlet fever.	
Measles. Puerperal fever.	
Malarial fever.	
Diarrhæal diseuses. Dysentery.	
Cholera morbus.	
()erebro-spinal meningitis.	
Cholera infantum.	-::::4-:3-:-:::::::::::::::::::::::::::
Croup and diphtheria.	- : -0: : 0- : : - : - :
Total zymotic diseases.	
Total under five years and over one year.	
Total under one year.	8 R
Annual rate per 1,000.	0558525371-488 8886 2 1831 2 1288 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	<u> </u>
Total deaths, all causes.	
	######################################
Population (estimated).	W 244-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4
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Kent Lebanon Lebanon Lisbon Lorain Lorain Lorain Marysville Marysville New Stratisville North Amherst, North Am	Total
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KERNY KARANTANA	

The following villages report no deaths during October: Centerburg, Mingo Junction, Murray City and Summerfield.



OF OHIO,	Apoplexia. Bright's disease.						2		-	-	63				-	2	1 1	1					2		1		8	=	- 01
SE	Total local diseases.		63	_	÷		_		•			-	•		-	. =		_	•			-				<u>.</u>	_		
THE FOLLOWING VILLAGES	Pothisis pulmonslis.		_	-	<u> </u>	÷	_		-			!	-	:	<u>:</u>	: :	-	-:	-	÷	Ļ	-	<u> </u>	<u>:</u>	÷		<del>-</del>	÷	<u>.</u>
빍	дьевьев. Сапсет.		က	<u>:</u>	<u>:</u>	: :=	_		-			-	+	:		_	:	_		<u>:</u>	<u>!</u>	<u>!</u>	_	<u>:</u>	-	<u> </u>	<u> </u>		
S	Whooping cough. Total constitutional			-	÷	<u>:</u>	_	_	<u> </u>	:	_	-	<u>:</u>	+	:		-	-:	-	:	_	_		<u> </u>	-		_	-	! ┌.
<u> </u>	Typhoid fever.	i	÷	÷	÷	<u>:</u> -	<u>;</u>	:	÷	:		:	÷	÷			÷	:	÷	÷	÷		<u> </u>	÷	÷-	÷	÷	<del>-</del>	-
3	Tonsillitis.		:	:	Ξ	Ξ		듸	-	-		:	-	Ξ	:		:	-	:	:	Ξ				:		<u>:</u>	-	1
ğ	Puerperal fever.	<del>- ;</del>	<u>:</u>	÷	÷	-	-	÷	÷	:	: :	-	÷	÷	-		<del>:</del>	÷	<u>:</u>	+	:		: :	÷	÷	H	÷	-	H
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The following villages report no deaths during November: Fernbank, Geneva, Summerfield, Wyoming.

ABSTRACT OF THE REPORTS OF DEATHS AND THEIR CAUSES, IN THE FOLLOWING VILLAGES OF OHIO DURING MONTH OF DEC. 1896.

Premature and still birth	190   1900-1
Тося Молепсе.	
Total developmental dis- eases.	
Pneumonia.	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Pleurisy.	
Meningitis.	
Heart disease.	
Gastritis and perttonitis.	
Convulsions.	
Bronchitle,	
Bright's disease.	
A poplexis.	
Total local diseases.	
Phthisis pulmonalis.	
Cancer.	
Total constitutional dis-	- 9 0 - 0 -
М рооріпк сопкр.	<u> </u>
Tonsillitis. Typhoid tever.	
Scarlet fever,	
Puerperal fever.	
Malarial fevers. Measels,	
Dysentery.	
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Cerebro-spinal meningitis	
Cholera infantum.	
Croup and diphtheria.	
Total zymotic diseases.	3
Over one year	
Total under five years an	
Total under one year,	
Annual rate per 1,000.	~~?~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
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Totals deaths, all causes.	
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Population (estimated).	െ വ് വ്യത്പ്കുക്ക്തിന്യാപ്യികുക്കില് എന്ന വ് വിപ്പ്യതില്ത് ആത്. 
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The following villages report no deaths during December: Centerburg, Cumberland, Morristown and West Liberty.

ABSTRACT OF THE REPORTS OF DEATHS, AND THEIR CAUSES, BY MONTHS, DURING THE YEAR 1896

Premature and still births.	155 155 155 155 155 155 155 155 155 155	1012
Total violence.	1833525555559 10000000000000000000000000000000	236
Тоты дечеюртенты дімеваны. Дімеваны	245 245 204 204 204 204 204 204 204 204 204 204	2106
Pneumonia.	55575 55575 5557 5557 5557 5557 5557 5	8
Pleuris).	@r@@400r@404	9
Meningitis.	2777988832478	14:
Heart disease.	252485848544	099
Gastritis and peritonitis.	\$7%\$24 <u>4644448</u>	204
Convulsions.	25.28.2.1.5.80.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	88
Bronchitis.	£45524453644536	88
		194
Bright's disease.	25 25 25 25 25 25 25 25 25 25 25 25 25 2	
A poplexia.		3
Total local diseases.	90.4 90.4 10.10 10	10074
Phthisis pulmonalis.	25.00 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2637
Cancer.	82282222	145
Total constitutional diseases.	842844788488888888888888888888888888888	193
Whooping cough.	9.0055E-28.85Te0	156
Typhoid fever	######################################	
Scarlet fever, Tonsillitis.	ಪ∝∋∞ <u>ಥಬಣಪತ್ತದ್</u> ವ ಪಾಣಪಜವಾ :ಜಜ : :	105 27
Paerperal fever.	<u> </u>	19
Mensles.	298232resc :4	5.
Dysentery. Malarial tevers.	48-1-01-14-01 60:08-4-01-1-00	<u> </u>
Diarrhoeal diseases.	r-œ-+œ@&&&&&@œ	120
Cholera morbus.		55
Cerebro-spinal meningitis.	11 a = 1 % 50 % % % a a a	863 149
Cholera infantum.	######################################	
Croup and diphtheria.		5 11 <b>6</b> 2
Total zymotic diseases.	35 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	원_
Total under five years and over one year.	82 12 12 12 12 12 12 12 12 12 12 12 12 12	2371
Total under one year.		± ₹
Annual rate per 1,000.	4824493764959 6449376498959 846498	13.57
reaching the following three	86858888888888888888888888888888888888	19:
Total deaths, all causes.		eri .
Population estimated.	1.777.67. 1.785.03. 1.737.17. 1.737.17. 1.731.11. 1.731.53. 1.736.987. 1.746.987.	1,753,992 2
Months	January Ferruary March April April May June July September November December	Totals

## Summary of Mortality Reports.

The total number of deaths reported from all causes—excluding premature and still-births—by the towns represented in the foregoing tables was 23,794. The average estimated population of the cities and towns represented was 1,753,992, which is equal to an annual death rate of 13.57 per thousand living population represented.

The deaths in 1,406,434 living population in 1895 were 24,717, equal to an annual death rate of 17.57 per thousand; while in 1894 the total number of deaths reported in 1,372,133 population was 23,993, equal to a mortality rate of 17.48 per thousand.

The number of deaths reported each month was as follows:

January	2,065	July	2,309
		August	
March	2,111	September	1,889
April'	2,032	October	1,950
		November	
June	1,832	December	1,908

The greatest number of deaths (2,309) was reported in July; the least number (1,749) in May.

#### DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

The number of deaths reported of children under five years of age (premature and still-born excluded), was 6,776, which is equal to 29 per cent. of the deaths from all causes, and a death rate of 3.87 per thousand population represented. The death rate of children under five the preceding year was 5.08 per thousand population represented.

The deaths by months, of children under five, were as follows:

January	504	July	909
•		August	
•	- 1	September	
April	519	October	515
May	427	November	457
June	599	December	367

The greatest number of deaths reported in children under five (909) was in July; the least number (367) was in December.

#### ZYMOTIC DISEASES.

The total number of deaths reported from zymotic diseases was 4,722, which is equal to 19 per cent. of the deaths reported from all causes, and an annual rate of 2.7 per thousand of the population represented.

The number of deaths reported the preceding year from zymotic diseases was 4,676, equal to a death rate of 3.32 per thousand population represented.

The number of deaths reported from zymotic diseases each month was as follows:

January	339	July	649
February	301	August	583
March	303	September	476
		October	
May	223	November	391
June	328	December	375

The month having the greatest number reported (649) was July' the one having the least (223) was May.

#### CROUP AND DIPHTHERIA.

The total number of deaths reported from croup and diphtheria was 1,162, which is equal to 4.9 per cent. of the deaths reported from all causes, and a death rate of .7 per thousand of the population represented.

The number of deaths reported the preceding year from these causes was 864, equal to a mortality rate of .62 per thousand of the population represented.

The number of deaths reported each month from croup and diphtheria was as follows:

January	81	July	35
Feburary	68	August	41
March	58	September	132
		October	
May	31	November	216
June	32	December	171

The month having the greatest number reported (244) was October; the one having the least number (31) was May.

#### CHOLERA INFANTUM, CHOLERA MORBUS AND DIARRHŒA.

The total number of deaths reported from .cholera infantum, cholera morbus and diarrhœa was 1,088, which is equal to 4.6 per cent. of the deaths reported from all causes, and a mortality rate of .62 per thousand population represented.

The number of deaths reported the preceding year from these causes was 1,321, which is equal to a mortality rate of .93 per thousand of the population represented.

The deaths, as represented by months, were as follows:

Jenuary	18	July	389
		August	
		September	
		October	
		November	
		December	

The month having the greatest number reported (389) was July; the months having the least (17) were March and December.

#### MEASLES, SCARLET FEVER AND WHOOPING COUGH.

The total number of deaths reported from measles, scarlet fever and whooping cough was 308, which is equal to 1.3 per cent. of the total number of deaths reported from all causes, and a mortality rate of .18 per thousand of the population represented.

The total number of deaths reported from these diseases during the preceding year was 547, equal to a mortality rate of .39 per thousand population represented.

The deaths, as reported by months, were as follows:

January	<b>3</b> 6	Julv	33
February	41	August	36
		September	
		October	
		November	
		December	

The month in which the greatest number of deaths was reported (74) was April; the least number (18) was reported in November.

#### TYPHOID FEVER.

The total number of deaths reported from typhoid fever was 767, which is equal to 3.2 per cent. of the total number reported from all causes, and a mortality rate of .44 per thousand population represented.

The number of deaths reported from this cause the preceding year was 776, equal to mortality rate of .55 per thousand living population represented.

The number of deaths from typhoid fever, as reported by months, was as follows:

January	73	July	49
February	60	August	89
March	60	September	106
April	48	October	82
		November	
June	32	December	57

The greatest number of deaths (106) was reported in September; least number (32) in June.

#### CONSTITUTIONAL DISEASES.

The total number of deaths reported from constitutional diseases was 4,193, which is equal to 17.6 per cent. of the deaths reported from all causes, and a mortality rate of 2.4 per thousand population represented.

The number of deaths reported from constitutional diseases the preceding year was 4,437, equal to a mortality rate of 3.15 per thousand population represented.

The number of deaths, as reported by months, was as follows:

January 393	July 34	7
February 387	August 33	6
March 398	September 32	8
April 394	October 29	3
May 339	November 28	2
June 334	December 36	2

The greatest number of deaths (398) was reported in March; the least number (282) was reported in October.

#### CANCER.

The total number of deaths reported from cancer was 745, which is equal to 3.1 per cent. of the deaths reported from all causes, and a mortality rate of .42 per thousand population represented.

The number of deaths reported from this cause the preceding year was 830, equal to a mortality rate of .59 per thousand population represented.

The deaths, as reported by months, were as follows;

January		3	July	56
February		2	August	51
			September	
April	6	8	October	59
-			November	
June	5	4	December	66

The month having the greatest number reported (73) was January; the months having the least (51) was August.

#### CONSUMPTION.

The total number of deaths reported from consumption was 2,637, which is equal to 11.11 per cent. of the deaths reported from all causes, and a mortality rate of 1.50 per thousand population represented.

The number of deaths reported from this cause the preceding year was 2,871, equal to a mortality rate of 2.04 per thousand population represented.

The number of deaths, as reported each month, was as follows:

January	257	July	213
February	249	August	212
March	278	September	183
April	249	October	170
May	231	November	170
June	211	December	214

The greatest number of deaths was reported in March (278), the least number (170) in October and November.

#### LOCAL DISEASES.

The total number of deaths reported from all local diseases was 10,074, which is equal to 42.23 per cent. of the deaths reported from all causes; and a mortality rate of 5.74 per thousand population represented.

The number of deaths reported from all local diseases the preceding year was 11,055, equal to a mortality rate of 7.86 per thousand population represented.

The deaths, reported by months, were as follows:

January 977	July	839
February 908	August	798
March 975	September	689
April	October	785
May 777	November	787
June 771	December	758



The month having the greatest number of deaths reported (1,010) was April; the one having the least number (689) was September.

#### BRONCHITIS, PLEURISY AND PNEUMONIA.

The total number of deaths reported from bronchitis, pleurisy and pneumonia was 2,476, which is equal to 10.41 per cent. of the deaths reported from all causes, and a mortality rate of 1.41 per thousand of the population represented.

In the preceding year there were 2,914 deaths reported from these causes, equal to a mortality rate of 2.07 per thousand population representated.

The deaths, as reported by months, were as follows;

January 314	July	129
February 277	August	119
March 308	September	120
April 295	October	167
May 168	November	210
June 155		

The month in which the greatest number of deaths was reported was January (314); the least number (119) was reported in August.

#### CONVULSIONS AND MENINGITIS.

The total number of deaths reported from convulsions and meningitis was 1,664, which is equal to 6.99 per cent. of the deaths reported from all causes, and a mortality rate of .94 per thousand population represented.

The number of deaths reported from these diseases the preceding year was 1,719, equal to a mortality rate of 1.22 per thousand population represented.

The deaths reported by months, were as follows:

January	132	July	161
February	138	August	
March	172	September	
April			
May	143	November	100
		December	

The greatest number of deaths was reported in April (178); the least number (98) in September.

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#### DEVELOPMENTAL DISEASES.

The total number of deaths from developmental diseases reported (excluding premature and still-births) was 2,106, which is equal to 8.81 per cent. of the deaths reported from all causes, and a mortality rate of 1.2 per thousand population represented. During the preceding year there were 2,138 deaths reported from developmental diseases, equal to a mortality rate of 1.52 per thousand population represented.

The deaths, as reported by months, were as follows:

Ianuary	184	July	185
		August	
		September	
April	154	October	169
May	144	November	165
June	141 .	December	185

The greatest number of deaths (245) was reported in February; the least number (141) in June.

#### PREMATURE AND STILL-BIRTHS.

The total number of premature and still-births reported was 1,942, which is equal to 8.16 per cent. of the deaths reported from all causes, and a rate of 1.11 per thousand population represented.

During the preceding year there were 1,858 premature and still-births reported, equal to a rate of 1.32 per thousand population represented.

The premature and still-births, as reported by months, were as follows:

lanuary	180	July	149
February		August	
March		September	147
April	161	October	
May		November	
		December	182

The greatest number (186) was reported in March; the least number (142) was in October.

#### VIOLENCE.

The total number of deaths reported from violence was 1,236, which is equal to 5.2 per cent. of the deaths reported from all causes, and a mortality rate of .71 per thousand population represented.

During the preceding year there were 1,323 deaths reported from violence, equal to a mortality rate of .94 per thousand population represented.

The deaths, as reported by months, were as follows:

January 1	14	Tuly	136
February			
March	82	September	110
April 1	06	October	102
May 1	25	November	89
June	86	December	87

The greatest number of deaths was reported in July (136); the least number (82) in March.

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## Twenty-Second Annual Report

OF THE

# Chief Inspector of Mines

TO THE

Governor of the State of Ohio,

For the Year 1896.

NORWALK, OHIO.
THE LANING PRINTING COMPANY,
1897.

Office of the Chief Inspector of Mines, Columbus, Ohio, August 13, 1897.

HON. ASA S. BUSHNELL, Governor of Ohio:

SIR: In accordance with the Revised Statutes relative to mines and mining, I have the honor to submit to your Excellency the twenty-second annual report of this department.

Very respectfully,

ROBERT M. HASELTINE, Chief Inspector of Mines.

### Annual Report.

To his Excellency, Asa S. Bushnell, Governor of Ohio:

SIR: I have the honor to submit to you the twenty-second annual report of the department of mines and mining for the year 1896.

To accord with the provisions of section 293 of the Revised Statutes, the statistical portion has been arranged to embrace the calendar year. That portion which is devoted to the inspection of mines extends from November 15, 1895, to November 15, 1896, which is regarded as the fiscal year.

The industrial depression which for the past three and a half years has burdened every commercial interest in the country, has been especially severe upon the mining industry. This has been particularly true during the year that has just closed, and as a result, the army of unemployed has been constantly increasing, and the contention for an opportunity to earn even a scant living has been the source of vigorous strife among the craft. In many instances men, maddened by the sight of want and suffering in their homes, and no doubt suffering the pangs of hunger themselves while they were engaged in the most hazardous vocations, became heedless of the perils that surrounded them and toiled on regardless of the warnings of approaching danger, until they were stopped by some casualty. This is without doubt largely accountable for the increase in the list of accidents as compared with that of former years.

The adverse condition of the industry has been equally severe upon the operators whose investments in machinery and for the necessary equipments with which to conduct mining upon the most advanced methods represents a vast amount of capital.

It will be seen in another chapter of this report that the time that the mines were in operation was seventeen days less than during the preceding year. Each day of idleness means to the operator a great loss as a great many expenses continue when the mine is not working. Thus it is that during such a period of depression this loss can sometimes be diminished even by selling the product at less than its cost of production. It will be seen that this means a lowering in the commercial value of coal, which is accompanied by the most rigid economy at the mines, usually wages being the first object to be attacked.

The year opened with the scale rate of mining at fifty-five cents, where it remained for two months, when it was advanced to sixty-one

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cents a ton, which price continued until about the first of October when the competition in trade became so fierce that the scale was reduced to forty-five, the price prevailing at the close of the year.

The department has no record of coal ever having been mined before at the latter price. It is believed to be the lowest price paid since mining became a recognized industry in the state.

The change in firms engaged in operating mines, business failures and changes in the management so common during a period of business depression, were of frequent occurrence during the year. These caused great inconvenience and many vexatious delays in securing the statistical returns for the year. The personnel of the department remained undisturbed and there were no reports made of new fields of coal having been developed.

The various features of the industry have been separated and arranged under appropriate headings and in such order as is thought to be most convenient for ready reference.

#### COAL SHIPPED TO LAKE PORTS DURING THE YEAR.

The returns indicate that 8,941,327 tons of coal were received for distribution at the several lake ports during the past year. Of this amount, 3,175,722 tons were anthracite, and 5,765,605 tons were of the bituminous variety. By a comparison of the preceding year, it is found to be an increase of bituminous coal, 1,543,692 tons. It indicates a total gain of 1,623,093 tons over the shipments of 1895, and an increase of 2,072,070 tons when compared with 1894. The total amount of coal received at the docks during the year just closed exceeds that of any in the history of the industry. And the annual gain has been exceeded but once during the period that a record has been made of the lake shipments.

Of the bituminous coal sent to the lake ports during the past year, 4,337,815 tons came from mines in Pennsylvania, 1,267,035 from Ohio, 159,117 from West Virginia, and 1,638 tons from Maryland. The latter was received at Fairport and is the first shipment from that state that has been reported to the department. The shipments of bituminous coal from Pennsylvania represent a gain of 1,755,828 tons. The total amount is equal to seventy-five and two-tenths per cent. of the year's shipment, as against sixty-one and one-tenth per cent. during 1895, sixty-five and nine-tenths per cent. during 1894, or forty-nine and nine-tenths per cent. during 1893. It will be seen that the Ohio fields furnished 1,267,035 tons, which is a loss of 99,679 tons as compared with the year of 1895, and a decrease as compared with 1894 of 301,877 tons. It also is a loss of 861,330 tons when compared with the production of 1893.



A more accurate conception will be had by reviewing a comparison of the percentage of Ohio coal received at the lake ports during recent years, by which it is found that during the past year it formed twenty-one and nine-tenths per cent. of the entire shipments of bituminous coal, as against thirty-two and three-tenths per cent. during 1895, twenty-eight and eight-tenths per cent. in 1894, forty-six per cent. in 1893, and forty-five per cent. during 1892. Thus it will be seen that during the past three years the percentage of lake coal originating in Ohio mines has decreased twenty-four per cent., while the quantity which came from the Pennsylvania mines has increased twenty-five and three-tenths per cent.

Although to the Ohio operator it may be somewhat startling, it is apparent that the lake shipments during the past year were the least of any of which the department has a record. From the mines in West Virginia there was received 159,117 tons as compared with 273,212 tons during 1895, 289,312 tons during 1894, or 280,781 tons during 1893. It is found that during the past year three and six-tenths per cent. of the lake coal originated at mines in this state, as compared with six and one-half per cent. during 1895, and five and three-tenths per cent. during 1894.

In the distribution it will be seen that 284,498 tons of anthracite coal, and 1,112,140 of bituminous was consigned to foreign ports, and that 2,891,229 tons of anthracite, and 3,736,745 tons went to American ports. It is found that 916,720 tons of bituminous coal were used for vessel fuel. Of this 795,715 tons or eighty-six and eight-tenths per cent. came from mines in Pennsylvania, 105,900 tons or eleven and six-tenths per cent. from Ohio, and 15,105 tons, equal to one and six-tenth per cent. from West Virginia. By a farther comparison, it is found that from the coal which originated in the Pennsylvania mines eighteen and three-tenths per cent. were used for tug and vessel fuel; eight and three-tenths per cent. of the Ohio coal, and nine and one-half per cent. of that which came from West Virginia was so diverted, as compared with twenty-one per cent., eight and one-half per cent., and twenty-nine and three-tenths per cent. respectively utilized during the preceding year.

By the second table, which is designed to exhibit the total lake tonnage for a period of years, it will be seen that at some of the lake ports the returns show an increase of 1,822,051 tons. The exceptions are Erie, Lorain and Toledo, at which there was a falling off of 198,958 tons, thus showing, as before stated, a net gain during the year of 1,623,098 tons.

Table Showing the Tonnage of Lake Coal Shipped from Ohio, West Virginia and Pennsylvania Mines During 1896. ALSO THE VARIETY AND HOW IT WAS DISTRIBUTED.

Івіке	Total amount of tonnage.	3,565,622 291,178 291,178 1,037,242 410,307 1,576,583 137,236 257,069 281,351	8,941,327
	Fuel for vessels.	200,000 134,118 29,556 124,959 15,728 286,284 1,116 12,065 17,320 55,584	916,720
c ports.	Bituminons.	48,504 61,010 840,502 354,579 1,179,570 120,871 244,135 257,811 629,763	3,736,745
Domestic ports	Authracite.	2,400,068	2,891,229
Foreign ports.	Bituminous.	682,062 2,311 200,612 71,781 110,729 15,248 6,220 6,220 22,308	1,112,140
Foreig	Anthracite.	1,638	284,493
Maryland	Bituminous.	1,001	1,638
W. Va.	Bituminous.	104,587 12,178 1,638 137,235 106,528 57,626 271,033 10,318 647,662 40,789	159,117
Ohio.	Bituminous.	104,587 137,235 106,528 271,033 647,662	1,267,035
Pennsylvania.	Bitumjnous.	882,062 184,933 291,178 1,037,242 396,491 1,433,790 92,906	4,337,815
Penns	Anthracite.	2,683,560	3,175,722
	Jake ports.	Buffalo, N. Y. 2,683,560 Erie, Pa 492,162 Conneaut, Ohio. Ashtablula, Ohio. Cleveland, Ohio. Loran, Ohio. Huron, Ohio. Sandusky, Ohio. Toledo, Ohio.	Totals

Shipped to foreign ports (anthracite and bituminous coal), 1,396,633 tons; to domestic ports, 6,627,974 tons. Total lake shipments (bituminous coal), 5,765,605 tons. Total lake shipments, 8,941,327 tons.

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Table Showing Shipments of Coal from Lake Ports from 1890 to 1896 Inclusive.

Gain. Loss.	944,854	680'09	125,105	38,470	85,243	521,108	140,425	49,059	58,217	8,444	1,822,051 198,958
1896	3,565,622	677,095	291,178	1,037,242	410,307	1,576,583	137,235	257,059	281,351	707,655	8,941,327
1895	2,620,768	727,184	166,073	998,772	325,064	1,055,480	277,660	208,000	223,134	716,099	7,318,234
1894	2,485,255	711,928	89,023	689,735	300,923	997,513	303,690	213,596	261,363	836,232	6,869,257
1893	2,7(3,673	625,023	23,184	7,87,653	234,089	1,512,308	526,405	227,444	195,276	938,533	7,773,588
1892	2,852,330	567,028		726,267	114,738	1,728,831	351,168	240,000	157,515	858,935	7,596,812
1891		286,990		; 86,375	66,914	1,016,487	288,811	200,000	157,571	947,288	6,016,331
1890	2,044,134	129,304		452,394	63,360	922,536	227,181	150,000	271,540	940,000	5,200,449
Lake Ports.	Buffalo, N. Y.	Erie, Pa	Conneaut, O	Ashtabula, O	Fairport, O	Cleveland, O	Lorain, O	Huron, O	Sandusky, O	Toledo, O	Totals

#### THE YEAR'S PRODUCTION OF COAL.

The following table is designed to exhibit the coal production of the state for the calendar year of 1896. It is so arranged as to show the several grades of coal as they are known in the market, and the amount that originated in each of the coal producing counties of the state. By a comparison of the footings of the several subdivisions with those of the preceding year, it is found that the loss in lump coal amounts to 663,868 tons. The decrease in nut coal equals 83,316 tons, and the pea and slack fell off 24,087 tons, thus making the total loss in the year's output 771,-271 tons. The ten principal producing counties in the list are Perry, Jackson, Athens, Hocking, Belmont, Guernsey, Stark, Jefferson, Tuscarawas and Columbiana, which appear in the order named. Seven of these return losses, Belmont, Guernsey and Stark being the only ones which show gains as compared with 1895. Perry county, which has been second in point of production during the two preceding years, has again assumed the head of the list which it had held for more than a decade, Jackson dropping back to the second position. Athens and Hocking remained third and fourth respectively, which is the position they have occupied for the past three years. Belmont advanced from sixth to fifth, and Stark from eighth to seventh. Guernsey receded from fifth to sixth and Jefferson from seventh to eighth, Tuscarawas and Columbiana remaining as during the two preceding years. The ten counties named produced eighty-two per cent. of the year's output of coal, while the counties of Athens, Hocking and Perry, which embrace the coal field known as the Hocking Valley, furnished thirty-four and two-tenths per cent. of the entire production of the state. This is an increase of two-tenths per cent. as compared with the preceding year when the amount equalled thirty-four per cent. as against thirty-six and seven-tenths per cent. during 1894, thirty-eight and four-tenths per cent. in 1893, and thirty-seven and seven-tenths per cent. during 1892. Of the three counties which comprise this district, Perry county produced thirty-eight and fourtenths per cent. of the output as compared with thirty-eight and fourtenths per cent. during 1895, or thirty-three and four-tenths per cent. in 1894, thirty-eight and one-tenth per cent. in 1893, and thirty-seven and three-tenths per cent. during 1892.

The second table is designed to more clearly exhibit the gain and loss in the year's tonnage as it occurred in the several coal producing counties of the state. From this table it will be seen that gains which amount to 677,042 tons appear in ten counties. Of these, Stark, Coshocton and Belmont are the most conspicuous, furnishing seventy-three and one-half per cent. of the amount. In the counties of Guernsey, Morgan, Muskingum, Stark and Summit gains have been returned during the two past years. In the counties of Belmont, Harrison, Meigs and Noble

which returned gains, losses occurred during the preceding year. Losses which amount to 1,448,813 tons occurred in twenty counties. Of these, Jackson, Jefferson, Tuscarawas and Columbiana are the most prominent. In the counties of Carroll, Columbiana, Jackson, Lawrence, Mahoning, Medina, Monroe, Perry, Scioto, Tuscarawas, Washington and Wayne in which there appeared gains last year, there were losses during the one which has just closed. A decrease has occurred in the counties of Athens, Gallia, Holmes, Hocking, Jefferson, Portage, Trumbull and Vinton during both the past years.

The third table is constructed to exhibit the annual coal production of the state since the creation of the Department.

TABLE SHOWING THE COAL PRODUCTION OF THE STATE BY COUNTIES DURING THE YEAR OF 1896.

	То	Tonnage for 1896.				
Counties.	Lump.	Nut.	Pea and slack.	Total, 1896.		
		105.000				
Athens	1,112,126	125,629	145,954	1,383,709		
Belmont	719,848	159,224	203,892	1,082,964		
Carroll	171,313	52,296	54,687	278,296		
Columbiana.	338,204	92,700	85,101	516,005		
Coshocton	237,732	43,708	61,185	342,625		
Gallia	4,770	1,610	291	6,671		
Guernsey	695,543	175,122	197,788	1,068,463		
Harrison	20,553	3,855	3,983	28,391		
Holmes	6,215	2,553	1,396	10,164		
Hocking	1,061,826	155,813	133,872	1,351,511		
Jackson	1,217,715	243,096	190,388	1,651,199		
Jefferson	455,660	83,476	131,731	670,867		
Lawrence	68,309	6,860	6,577	81,746		
Mahoning	34,472	8,063	9,742	52,277		
Medina	140,772	17,387	37,510	195,669		
Meigs	213,312	5,898	40,086	259,296		
Morgan	12,474	2,761	3,845	19,080		
Monroe	2,337	62	426	2,825		
Muskingum	182,482	24,791	56,832	264,105		
Noble	28,480	6,118	7,909	42,507		
Perry	1,347,436	165,986	190,394	1,703,816		
Portage	35,160	5,821	7,079	48,060		
Scioto	1,742	5	38	1,785		
Stark	805,044	93,327	158,608	1,056,979		
Summit	42,970	4,020	7,076	53,666		
Trumbull	5,592	201	1,379	7,172		
Tuscarawas	404,954	102,133	106,476	613,563		
Vinton	36,353	5,705	4,445	46,503		
Washingron	2,286	584	776	3,646		
Wayne	56,036	4,014	9,008	69,058		
Totals	9,461,316	1,592,818	1,858,474	12,912,608		

#### EXECUTIVE DOCUMENTS.

TABLE SHOWING THE COAL TONNAGE OF THE STATE FOR 1896 AS COMPARED WITH 1895.

Counties.	1895.	1896.	Gain.	Loss.
Athens	1,435,744	1,383,709		52,035
Belmont	961,367	1.082,964	121,597	
Carroll	326,670	278,296		48,374
Columbiana	644.823	516,005		128,818
Coshocton	161.723	342,625	180,902	
Gallia	10,341	6.671		3,670
Guernsey	972 505	1.068,453	95,948	
Harrison	26,003	28,391	2,388	
Holmes	12,665	10,164		2,501
Hocking	1,432,741	1,351,511		81,230
Jackson	2,072,939	1,651,199		421,740
Jefferson	861,185	670,867		190.318
Lawrence	125,280	81,746		43,534
Mahoning	101,866	52,277		49,589
Medina	265,411	145,669		69,742
Meigs	216,897	259,296	42,399	
Morgan	17,930	19,080	1,150	
Monroe	5,483	2,825		2,658
Muskingum	255,230	264,105	8,875	
Noble	19,376	42,507	23,131	
Perry	1,789,109	1,703,816	20,200	85,293
Portage	87,012	48.060		38,952
Scioto	3,875	1,785		2,090
Stark	860,733	1.056.979	196.246	_,,,,,
	49.260	53,666	4,406	
SummitTrumbull.	29,809	7,172	1,100	22.637
Tuscarawas	753,286	613,563		139,729
Vinton	61,068	46,503		14,565
Washington	4,533	3,646		887
Wayne	119,015	69,058		49,957
Totals	13,683,879	12,912,608	677,042	1,448,313

Net Loss 771,271.

TABLE SHOWING THE COAL OUTPUT OF THE STATE FROM 1872 TO 1896 INCLUSIVE.

Years.	Output.	Gain.	Loss.
1872	5,313,294		
1873	4,550,028	l. <b></b>	76,526
1874	3,267,585		128,244
1875	4,864,259	1,596,674	
1876	3,500,000		1,364,259
1877	5,250,000	1,750,000	
1878	5,500,000	250,000	
1879	6,000,000	500,000	
1880	7,000,000	1,000,000	
881	8,225,000	1,225,000	
.882	9,450,000	1,225,000	
1883	8,229,429		1,220,57
884	7,650,062		579,36
885	7,816,179	166 117	l
886	8,435,211	619,032	
l887	10,301,708	1,866,479	
888	10,910,946	613,338	<b> </b>
889	10,907,385	l	3,561
890	11,788,859	881,474	l
891	13,050,187	1,261,328	
892	14,599,908	1,549,721	
893	14,828,097	228,189	<b>[</b>
.894	11,910,219		2,917,878
895	13,683,879	1,773,660	l
.896	12,912,608	L	771.271

#### COAL MINED BY MACHINERY DURING THE YEAR.

It frequently occurs during a period of industrial depression that the coal operator finds his losses to be less by disposing of his product at the market price, even if below the cost of production, than they would be to entirely suspend operations. It has also been claimed, and it has been generally conceded that during a period of extreme low prices for pick mining, machine mining is unprofitable. However this may be, during the past year it has been plainly manifest that in the districts where coal was produced by both processes, the machine mines run with the greatest regularity. In some sections of the state, pick mines were only able to run on the co-operative basis. Whatever the facts may be, the returns for the year show that of the entire production of the state, there was a decrease of 771,271 tons, as compared with the preceding year, while on the other hand, the production of machine mined coal indicates an increase of 247, 898 tons. This fact might be construed to indicate that even under the most adverse circumstances, machine mining is the more profitable means whereby coal can be produced.

From the accompanying table it will be seen that during the past year coal was produced by machinery in eleven counties of the state as compared with seven during the one which preceded it. In addition to these since the introduction into the industry of electricity as a power, installations were made in the counties of Coshocton, Summit and Muskingum. Thus it will be seen that machine mining has been attempted in fourteen of the coal producing counties of the state. The installation made in Coshocton during 1889 proved to be unsatisfactory, as did the one in Summit, no coal worthy of mention being produced. Machine mining was discontinued in both Summit and Muskingum counties during 1894. Columbiana county, which dropped from the list during 1891, reappears during the one just closed, and the counties of Carroll, Portage and Stark appear for the first time in the 1 st.

The average time worked is given at twenty-four weeks, a loss of two weeks as compared with 1895. It is a loss of three and four-tenths weeks as compared with the average time worked throughout the state during the year just closed. It is found that during the year 579 hands were employed to operate the machines, as compared with 447 during 1895, and 4,346 hands were engaged in shooting down and loading the coal after the machines, as compared with 3,374 during the year preceding. In the counties of which a comparison of the production can be made, it is found that gains as compared with 1895 occur only in Athens and Geurnsey, while losses appear in Belmont, Hocking, Jackson, Perry and Tuscarawas. As in former years, the largest production appears in Hocking, Athens, Perry and Guernsey. In the three former, which are known in the coal trade as the "Hocking Valley," ninety-six per cent. of the entire amount originated. This is an increase of three per cent., as compared with 1895, and is equal to that percentage during 1894.

TABLE SHOWING THE AMOUNT OF COAL MINED BY MACHINERY, THE TIME WORKED, AND THE NUMBER OF MEN EMPLOYED IN MACHINE MINING.

Counties.	Weeks worked.	Hands operating machines.	Hands following machines.	Lump.	Nut.	Pea and slack.	Totals.
Athens	24	192	1,415	804,259	84,977	97,172	986,408
Belmont	18	16	24	17,238	2,227	6,424	25,889
Carroll	40	8	75	28,821	10,568	8,646	48,035
-Columbiana	8	12	65	4.359	1,317	1,609	7,315
Guernsey	15	57	343	130,962	37,377	43,329	211,668
Hocking	25	157	1,651	995,634	143.403	121,491	1,260,528
Jackson	51	6	14	19,308	2,317	1,000	22,625
Perry	28	96	676	636,754	67,958	70,874	775,586
Portage	26	9	31	4,221	882	116	5,219
Stark	21	14	28	10 887	2,742	1,3/2	15,001
Tuscarawas	10	12	24	6,515	2,373	1,187	10,075
Average and totals	24	579	4,346	2,658,988	356,141	353,220	3,368,349

TABLE SHOWING THE ANNUAL PRODUCTION OF MACHINE MINED COAL SINCE THE INTRODUCTION OF ELECTRICITY INTO THE MINES OF THE STATE.

Years.	Output tons.	Gain.	Loss.		
1889	900,000				
890	1,148,449	248,449			
1891	1,654,081	505,632			
892	2,23,,080	584,999			
1893	2,553,074	313,994			
1894	2,555,466	2,392			
895	3,120,456	564,990			
1896	3,368,349	247,893			

Table prepared by Mr. F. S. Brooks, Secretary of the Ohio Coal Association, designed to show the scale rate paid for pick mining, and the corresponding prices paid for the several sub-divisions of machine mining in the Hocking Valley during the past six years. The writer wishes to acknowledge his obligations to Mr. Brooks for the remission to insert the table in this report.

Hocking Valley mining.	1892-3 and up to Feb- ruary 17, 1894.	From February 17, 1894, to April 21, 1894	Strike April 21, to June 11, 1894, from then to June 1, 1895.	From June 1, 1895 to October 1, 1885.	From October 1, 1896. to March 1, 1896.	From March 1, 1896, to October 1, 1896.	From October 1-25, 1896 to Jan'ry 1, 1897.	From January 1, 1897, to date, and—
Plek.						Ì		
Mining screened lump	€0 70	\$0150	<b>80</b> 60	\$0 51	\$0.55	80 61	80 45	<b>\$</b> 0 51
Machine mining prices.						1	1	
Cutting (Lechn. or Jeff.) rooms Cutting (Lechn. or Jeff.) entries Cutting (Harrison) rooms Cutting (Harrison) entries Loading (In rooms Loading & hand-drilling rooms Loading & hand-drilling entries. Loading (BrkThro's) rooms Loading (BrkThro's) rooms Loading (BrkThro's) rooms Loading (BrkThro's) rooms Loading (BrkThro's) rooms Loading (BrkThro's) roms	12½ 13½ 35 88 43½ 46½ Ent.pr. 41 44 02	293 323 011/4	08 11 12½ 13½ 30 33 36 39 Ent. pr. 35 38	07 10 11½ 12½ 25½ 28½ 31½ 31½ Ent.pr. 29½ 32½ 01½	13 27¼ 30½ 83¼ 86¼ Ent.pr. 32¼ 35¼ 01¼ 4 50°	11 12½ 13¼ 30½ 83½ 86½ 39½ Ent.pr. 854 889 02 4 50	81½ Ent.pr. 26½ 29½ 01½ 4 20	07 10 11½ 25½ 28½ 31½ 34½ Ent. pr. 20½ 01½ 4 50 Ent. pr.

## MINES IN WHICH MINING MACHINES HAVE BEEN IN-STALLED, AND THE NUMBER AND KIND OF EACH.

The adverge conditions which have seriously affected the mining industry during past years, appear to have given to the subdivision herein treated a stimulant. Great as has been the depression upon the coal trade an analysis of the accompanying table reveals the fact that thirteen new plants have been installed during the past year. This equals half the number of installations effected during the six preceding years. A noticeable feature in the year's returns is the fact that not an instance is reported where the use of the mining machines have been discontinued, whereas during the six preceding years there were twenty instances where the use of machines was either suspended indefinitely or abandoned, the greatest number of instances in a single year being five, and the least, two. The new mines added to the list during the year are:—Phœnix No. 2, Courtright & Kistler or No. 16, Maple Hill, Springfield and Daleton in Athens county. In the latter the installation was made during the year of 1893, and after a few months its operation was discontinued. Sherrodsville No. 5 in Carroll county and the New Shaft at Salineville in Columbiana are the first plants in these fields. In Guernsey county the Central, Hartford and Trail Run are returned. These two former appear for the first time in the list while at the latter for a number of years the coal was largely produced by the use of compressed air machines of the projectile type. These were displaced during the year by an electric plant which furnishes power for both the Trail Run and Hartford mines. The Caw-

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thorn mine in Hocking, Glendale in Perry, Hutson No. 4 in Portage and Woodland in Stark are also mines in which installations were made during the year. The records show that at the close of the year there were forty-five mines equipped with mining machines. In these it is found that 209 mining machines were operated, an increase of forty-five as compared with the former year. This is a gain that has not been equalled during any year of which there is a record. Of the above number 130 were of the electric type as compared with eighty-two during 1895, fifty-nine in 1894, forty-two in 1893 and twenty-seven during 1892. There were seventy-nine machines designed for the use of compressed air as compared with eighty-two during 1895, 112 in 1894, 107 in 1893 and 102 during 1892. It is found that there was an increase in electric machines of forty-eight, while the number of air machines decreased three, also that sixty-two and one half per cent. of the machines were propelled by electric. ity, as compared with fifty per cent. during 1895. Of the machines designed to use electricity seventy-seven are of the Jeffrey manufacture, forty-two of the Morgan-Gardner, one Independant and ten were introduced during the year by the General Electric Company. These last are machines new in design and embrace many most excellent qualities. the list of air machines, thirty-six are of the Jeffrey manufacture, twentyeight of the Harrison and fifteen Ingersoll-Sergeant, the two latter being known as of the reciprocating pattern. In addition for the purpose of removing the coal from the mines there were added three electric motors, which have increased the list to six. Of the new ones the Jeffrey Manufacturing Company of Columbus, the Link-Belt Machinery Co. and the Morgan-Gardner Co. of Chicago, each built one.

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TABLE SHOWING THE NUMBER, MANUFACTURER, MOTIVE POWER, AND LOCATION OF THE MINING MACHINES IN OPERATION IN THE STATE.

		E	lect	ricit	y.		npr d ai	ess- r.	ame of
Name of mine.	Counties.	Jeffrey.	Morgan-Gardner.	Independent or Link Belt Co.	General Electric Co.	Jeffrey.	Harrison.	Ingersoll-Sergeant.	Electric motors and name maker.
Bessie	Athens					2	9		
Phœnix	ишень		,	•••••					
No. 4 at Jacksonville	"			•••••			••••		
	"					5	•••••		
Brier Rridge.			••••	• • • • • • •	• • • • • •		•••••	• • • • •	
No. 10 Sunday Creek Coal Co	"			•••••	• • • • •	7	•••••	• • • • •	
No.16 or Courtright & Kistler	",					• • • • • •	• • • • • •	•••••	
Maple Hill		1		•••••		••••	••••	• • • • •	
Springfield			1	•••••		• • • • •	• • • • • •	• • • • •	
Hiawatha or No. 10			-	•••••	· · · • •	• • • • •	••••	• • • • • •	
No. 24 or Crescent			4	•••••		• • • • •	•••••		
Federal Valley No. 2			•••••	•••••		• • • • •	3	1	
Oakdale	"	2	2						
Minker Run			<b>'</b> ,			5	3		
Black Diamond	"	1	2						Gen. Electric
Daleton	"		3						
Flushing	Belmont						8		
Sherrodsville No. 5	Carroll	5	[ <u>]</u>			;			Jeffr <b>e</b> y
New Shaft	Columbiana	3				'			- <del>-</del>
Morgan Run	Coshocton								Schlessinger
Central	Guernsey	1	11						J
Walhounding	" .	4	10			,			
Trail Run	"								
Hartford	44	!			4				
New Pittsburg Nos. 678 and 9	Hocking						5		
Snake Hollow	"								
Morris No. 1 or Sand Run		4	•						
Morris No. 2 and 3 or Jobs		5							Independent
Murray City or No. 29	"	1 4		1		•	••••		[Link Belt Co
Coalgate	44								[4.Babereco
No. 15 C. & H. C. & I. Co			•		•••••	3			
Cawthorn	"								
Lost Run	"					•••••		••••	
Star No. 3		0				•••	• • • • • •	i	[Gardner
No. 21 Sunday Creek Coal Co	Perry	····	• • • • •			٠ -			Morgan-
	"	9	• • • • •		• • • • •	• • • • •	ا ئ		Jeffrey
Upson No. 1	"								jenrey
Congo		1	•••••		• • • • • •	• • • • •			
Glendale or Hemlock	"	1	• • • • • ;	•••••	• • • • •	• • • • •	•••••	•••••	
No. 3 C. & H. C. & I. Co. Rock	*******							• • • • • •	
Run	T)	4	1	•••••			,	• • • • •	
Hutson No 4	rortage		• • • • •	•••••	Z	• • • • •		· · <u>··</u> ··	
Woodland	Stark	••••	• • • • •		• • • • •	• • • • •	·ļ	1	
Brock Hill No. 3	Tuscarawas'		• • • • •	•••••	• • • • •			6	
Totals		77	· 19	-	10	 36 ·		15	

Mining machines-Electric, 130; compressed air, 79; total, 209.

# NUMBER OF MINES IN OPERATION AND TIME WORKED AS COMPARED WITH 1895.

The first columns of the accompanying table exhibit the number of mines that were in operation in the state during any portion of the year as compared with the year preceding. By an examination it will be seen that the total number is given as 1,084, a decrease of thirteen in the active list as compared with 1895. The greatest number appear in the counties of Muskingum, Stark, Tuscarawas, Perry, Belmont and Jackson, which occur in the same order as they appear in the preceding report of this Department.

In the columns which show the year's increase and decrease, it is found that gains amounting to thirty-five occur in nine counties as compared with fifty-eight in thirteen counties during the preceding year. Losses amounting to forty-eight appear in eighteen counties as against fifty-seven in thirteen counties during 1895, and in three counties the number remained the same.

In the last four columns of the table will be found the average time the mines were in operation, and the gain and loss in each of the several counties throughout the state as compared with the preceding year. In these the average time worked is given at twenty-seven and four-tenths weeks. In sixteen counties it was exceeded and in fourteen the time worked was below. As compared with 1895 gains appear in nine counties, Scioto being the only one of prominence, the production of which makes it an unimportant factor. Losses occur in seventeen counties, of which Gallia, one of the small producers, is the only one of prominence.

In previous reports the time worked has been computed upon the basis of six working days to the week. The observance among the miners of the Saturday half holiday has of late become so universal that it has been deemed wise to change the unit to conform to the actual number of weeks that the mines were in operation. Unless this fact is noted, a comparison of the time worked with former reports will be misleading.

The average time that the mines of the state worked will be more clearly understood when it is stated that the returns show that they were in operation 151 days as compared with 168 days during each of the two preceding years, 174 days during 1893 and 194 days during 1892. It will be seen that the time worked during the past year shows an average loss of seventeen days in each county of the state as compared with 1895.



TABLE SHOWING COMPARATIVELY THE NUMBER OF MINES OPERATED, AND WEEKS WORKED IN 1895 AND 1896.

Counties.	Number of mines worked in 1985.	Number of mines worked in 1896.	Gain.	Loss.	Average number weeks worked in 1895.	Average number weeks worked in 1896.	Gain.	Loss.
Athens Belmont Carroll Columbiana Coshocton. Gallia. Guernsey Harrison Holmes Hocking Jackson lefferson. Lawrence. Mahoning Medina. Meigs Morgan Monroe Muskingum Noble. Perry Portage Scioto. Stark Summit Trumbull Tuscarawas Vinton Washington Wayne.	45 77 22 65 26 4 27 55 10 25 69 51 41 41 11 28 3 12 113 44 80 7 15 15 14 11 11 11 11 11 11 11 11 11 11 11 11	44 73 19 64 32 5 33 50 15 23 72 48 42 40 10 28 2 6 77 6 3 88 15 11 15 12 10 10 10 10 10 10 10 10 10 10 10 10 10	7 2 3 3 1	1 4 3 3 1	24 30 37 33 32 29 23 31 23 36 25 30 30 29 32 31 20 28 21 31 20 28 21 31 20 28 21 31 31 23 31 31 31 31 31 31 31 31 31 31 31 31 31	23 28 33 32 10 27 26 34 27 27 28 28 29 32 25 27 15 33 21 28 19 48 31 33 25 21 28 31 21 28 32 21 28 28 28 28 29 20 20 21 21 21 21 21 21 21 21 21 21 21 21 21	3 2 10 11 3 2 2	13 4 4 2 2 3 3 1 1 1 6 4
	1,007	1,004	30	30			21	, x
Average		<b></b> 	• • • • • • • • • • • • • • • • • • • •		28	2740	•••••	•••••

The average number of weeks worked were reckoned on the basis of five and one-half days to the week, wherein in former reports the time was computed on the basis of six days to the week, the observance of the Saturday half-holiday having become so general as to necessitate making the change.

# LARGE AND SMALL MINES IN THE STATE AND THE NUMBER THAT WERE IN OPERATION DURING THE YEAR.

By an examination of the accompanying table it will be seen that at the close of the year there were 1,208 mines in the state, an increase of sixteen as compared with the preceding year, and a number not equalled during any year of which there is a record.

The greatest number of mines appear in Muskingum county, which is given as 134. This is followed by Stark and Tuscarawas with ninety-six each. Then comes Perry with eighty-nine, Jackson with seventy-eight and Belmont with seventy-seven.

Those which employ more than ten men are classed as large mines. Of these there are 406, a decrease of eighteen as compared with 1895. The greatest number are reported in Jackson, Perry, Athens, Belmont, Columbiana, Stark and Tuscarawas. Of this class of mines 360 or eighty-eight and six-tenths percent, were in operation at some time during the year, a decrease of 22 as compared with 1895.

The returns show that in the counties of Columbiana and Coshocton there was a gain of three in each, and in the counties of Gallia, Noble and Summit the number in each was increased by one, the total gain during the year being nine.

Losses amounting to thirty-one occur in fourteen counties. Of these seven were in Muskingum, five each in Carroll and Jefferson, two in Belmont, Stark and Trumbull and one each in Athens, Jackson, Medina, Meigs, Perry, Scioto, Vinton and Wayne. In the counties of Guernsey, Harrison, Holmes, Hocking, Lawrence, Mahoning, Morgan, Monroe, Portage, Tuscarawas and Washington the number of active mines remained the same as during the preceding year.

In the column which exhibits the number that gave employment to less than ten men the total is found to be 797, an increase over the preceding year of thirty-four. Of the total number Muskingum furnishes 119, Tuscarawas sixty-seven and Stark sixty-six. The returns show that of this class of mines 724 were in operation during the year. Gains as compared with 1895 appear in twelve counties. Of these fourteen appear in Muskingum, six in Guernsey, five in Holmes, four each in Jackson and Tuscarawas and three in Coshocton, two each in Carroll and Jefferson and one each in Lawrence, Meigs, Noble and Scioto.

Losses are found in thirteen counties of which seven were in Stark, six in Monroe, five in Harrison, four in Columbiana, two each in Belmont, Hocking, Perry and Washington and one each in Mahoning, Morgan, Portage, Summit and Trumbull.

The total number of mines in operation during the year is given as 1,084, a decrease of thirteen as compared with the preceding year when the number of active mines exceeded that of any in the state's history.

In nine counties gains which amount to thirty-five appear. Of these seven were in Muskingum, in Columbiana and Guernsey there were six each, in Holmes five, Tuscarawas four, Jackson three, Noble two and in in Gallia and Lawrence each one. Losses aggregating to forty-eight occurred in eighteen counties of which nine were in Stark, six in Monroe, five in Harrison, four in Belmont, in Carroll, Jefferson, Perry and Trumbull, three each; in Hocking and Washington there were two each, and in Athens, Columbiana, Mahoning, Medina, Morgan, Portage, Vinton and Wayne one each. In Meigs, Scioto and Summit the number remained the same as during 1895.

TABLE SHOWING THE NUMBER OF LARGE AND SMALL MINES IN THE STATE AND THE NUMBER OF EACH THAT WERE IN OPERATION DURING 1896.

Counties.	No. mines which employ more than ten men.	No. mines which employ less than ten men.	5	No. large mines in operation during 1896.	No. small mines in operation during 1896.	Total No. mines in operation during 1896.
Athens Belmont Carroll Columbiana Coshocton Gallia Guernsey. Harrisou Holmes. Hocking Jackson. Jefferson Lawrence Mahoning Medina. Meigs Morgan Monroe Muskingum Noble Perry Portage. Scioto Stark	35 31 10 31 18 2 14 1 	22 46 11 37 15 3 22 54 16 7 21 38 45 35 45 15 49 49 49 49 49 49 66	57 77 21 68 33 56 55 16 26 78 53 52 40 10 28 2 9 134 50 89 7 3 96	26 29 9 28 18 2 14 1 	18 44 10 36 14 3 19 49 15 6 20 35 35 35 4 15	444 738 199 64 322 5 333 50 15 223 722 40 10 10 28 2 6 120 46 77 6 3 88
Summit	4	12 10 67 12 6 2	16 14 96 20 7 5	4 2 20 5 1 3	11 9 65 12 4 2	15 11 85 17 5
Totals	406	797	1,203	::60	724	1,084

#### MINERS AND DAY HANDS.

The returns for the year that has just closed show that 28,446 persons found employment in and about the mines of the state. This it will be observed is a decrease of 552 as compared with 1895. In compiling the reports of the Department during late years the mine employes have been divided into two classes and were known as miners and day hands. It has been thought best to subdivide the latter class and in this report the table has been so constructed that the number employed on the inside of the mine and those engaged on the outside can be readily seen.

Under miners, in addition to the men who mine with the pick, are classed those employed in operating and assisting in operating the mining machines, also all who are engaged in shooting down and loading into the mine cars the coal undercut by the machines.

In the accompanying table it is found that the number of miners employed during the year just closed is given at 22,145 as compared with 22,416 during 1895, 25,163 in 1894, 22,463 in 1893 and 21,002 during 1892. Thus it will be seen that the number employed during the past year is 271 less than in 1895.

The greatest number are found in the counties of Jackson, Perry, Athens, Hocking and Stark, which occur in the same order as during the preceding year. In these five counties which lead the list in the production of coal, fifty-three and six-tenths per cent. of the miners in the state found employment as compared with fifty-two and three-tenths per cent. of the number returned during 1895.

In seventeen counties gains to the amount of 671 are reported, but two of which are particularly prominent. These are Coshocton, in which there were 155, and Athens in which they amount to 145. The two represent forty five per cent. of the gains reported. Losses amounting to 942 are reported from thirteen counties. Of these 420 occur in Jefferson and 142 in Perry. The falling off in the former can be attributed to the closing of two large mines on the line of the W. & L. E. R., while in the latter it is no doubt due to the fierce competition in the trade which rendered the operating of pick mines in this county less profitable than it has been during former years.

Under day hands, which includes all labor that is paid for by the day, the tables show that those who were employed inside as roadmen, drivers, trappers, etc., amounted to 3,764 persons, while the outside employes, which embrace the engineers, blacksmiths, dumpers, trimmers, etc., aggregate 2,537. Thus it appears that the total number of day hands who found employment in and about the mines during the year equalled 6,301, as compared with 6,582 during 1895, 6,330 in 1894, 6,847 in 1893, 5,970 in 1892 and 2,916 during 1891.



It will be seen that gains equalling 144 persons appear in twelve counties, and losses amounting to 425 occur in sixteen counties, of which Jefferson is the only one of prominence. The net loss of day hands as shown by the returns amounts to 281.

Table Showing the Number of Miners and Day Hands Employed in the Several Counties During 1896 as Compared with 1895.

Counties.	Tumber miners em- ployed during 1895.	Tumber miners em- ployed during 1896.			day hands ed during	e:	er day mploye ring 18	ed .		
	ed	ber ed			ber loy					i
	Number ployed	Number ployed	Gain.	Loss.	Number day employed d 1895.	In Si	Out de.	Total.	Gain.	Loss.
Athens	2,296	2,441	145		599	359	271	630	31	
Belmont	1,576	1,589	13	•••••	430	255	161	416	0.	14
Carroll	530	552	22	•••••	149	94	61	155	6	
Columbiana	1.041	1.067	26		268	145	126	271	6	•••••
Coshocton	336	491	155		107	78	49	127	20	
Gallia	25	23	100	2	7	ii	6	17	10	• • • • • • • • • • • • • • • • • • • •
Guernsey	1,088	1,052	•••••	36	354	251	115	366	12	•••••
Harrison	86	96	10	00	22	10	14	24	12	
Holmes	33	38	5		10	3	7	10	-	••••
Hocking	1,885	1.923	38		481	270	209	479		2
Jackson	3,119	3,139	20		1,163	865	339	1,204	41	_
Jefferson	1,650	1,280	20	420	369	134	125	259	7.	110
Lawrence	342	269	•••••	73	57	34	23	57		110
Mahoning	283	259		24	103	32	43	75		28
Medina	367	368	1		81	47	44	91	10	20
Meigs	513	527	14		207	127	72	199	10	8
Morgan	62	63	1		207	8	6	14	7	
Monroe	30	17	_	13	12	1	2	3		9
Muskingum	541	580	39	. 10	117	43	49	92		25
Noble	89	135	46		36	11	13	24		12
Perry.	2,627	2,485		142	716	375	303	678	•••••	38
Portage	206	236	30	172	85	53	29	82		3
Sciota	200	5	30	3	00	00	1	1	1	۰
Stark	1,809	1.898	89	"	572	261	254	515		57
	119	136	17		43	201	22	42	•••••	i
Trumbull	64	37	1	27	32	3	14	17	********	15
Tuscarawas	1,221	1,142		79	361	211	139 -	350		11
Vinton	228	163		65	105	36	18	54		51
	19	18		6	105	30	3	6	1	91
Washington	223	171		52	84	24	19	43	1	41
Wayne	223	1/1		UZ	04		19			41
Totals	22,416	22,145	671	942	6,582	3,764	2,537	6,301	144	425

Net loss in miners, 271. Net loss day hands, 281.

### REVIEW OF THE FOREGOING TABLES.

By an examination of the summaries of the preceding tables it is found that if from the number of miners employed in the state, the number engaged in operating mining machines be deducted, that there were 17,220 men employed as pick miners, a decrease of 1,425 as compared with the year of 1895. Again, it is found that by deducting from the year's total output of the coal the amount produced by machine mining, that 9,544,259 tons were produced by pick mining, a decrease of 1,019,164 tons as compared with the previous year.

Thus, it will be seen that the average yearly production for each miner was  $554\frac{1}{4}$  tons of run of mine coal, an individual loss of twelve tons and 600 pounds, as compared with 1895. In a former table it is seen that the mines throughout the state worked on an average of 151 days, from which it will be seen that each miner made an average daily production of  $3\frac{1}{2}\frac{3}{000}$  tons each day that he worked, as against  $3\frac{7}{2000}$  tons during the preceding year.

The scale rate for pick mining up to the first of March for screened coal was 55 cents per ton, when the price was advanced to 61 cents, where it remained until October 1st, when it was reduced to 45 cents, which price prevailed until the close of the year. Assuming that the production was fairly uniform throughout the year, it is found that the average price paid for mining was 56 cents per ton. A rule in general use in the state assumes that two-sevenths of the state's product is fine coal. Therefore, at 56 cents per ton (the average price which prevailed during the year) the daily wages of each miner will be found to average \$1.47 during the time that the mines were in operation, or a total of \$221.55 for the year's work, which would give to each miner an average pay of \$18.46 per month, as compared with \$18.48 during 1895.

By a table devoted to the exhibition of coal mined by machinery it is found that 3,368,349 tons were produced by this means. By applying the rules and customs in force in the Hocking Valley, where more than ninety per cent. of the machine mined coal originates, it is found that 2,863,097 tons, which equals eighty-five per cent., came from wide work as it is commonly known, and that 15 per cent. or 505,252 tons came from narrow work. It has also been found that 579 persons were employed in operating machines, thus making the average yearly production of wide work coal to each machine man four thousand nine hundred and forty-four and nine-tenths tons, and of narrow work coal eight hundred and seventy-two and six-tenths tons. The average time that the machines worked is given at 132 days, which gives to each miner a daily average production of thirty-seven and forty-six hundreths tons from wide work, which at the rate of seven and four-tenths cents per ton (the average price during the year) would equal \$2.77. To this must be added the amount



produced from narrow work, which is found to be six and sixty-one one-hundredths tons per day. This at ten and four-tenths cents per ton will equal 68 cents. Thus it will be seen that the men who operated mining machines made an average of \$3.45 per day during the time that the mines were in actual operation. It will be further seen that the year's earnings amounted to \$455.40 or \$37.78 per month.

As to those who followed the machines and blasted down and loaded out the coal, there were 4,346. Hence, as compensation for loading 2,863,037 tons removed from wide working at 30 cents per ton, there was paid \$858,929.10, and for shooting and loading 505,252 tons from narrow work at 37 cents there was paid \$186,943.24, making the total amount paid out for blasting and loading of the machine mined coal \$1,045,872.34. This was paid to 4,346 miners for 132 days' work.

It will be seen that the average wages while the mines were actually working was \$1.80 per day. And for the year's work they received \$240.65 or \$20.05 per month. It will be observed that the machine miners who were engaged in following the machines worked nineteen days less than the pick miners and had but \$1.59 per month more on which to support their families. It will also be observed that those who were employed to operate mining machines received more than double the wages paid to the pick miner. It is believed that the difference in the daily earnings between the pick miner and the machine miner is greater than the returns indicate as there is no doubt but in many instances the pick miners spent much time in making coal ready when the mines were not in operation. There is no doubt but that the margin per day between the machine runner and the pick miner is less than the returns indicate, as the former under-cut a large amount of coal on days when the mines were idle, the relative time of each being not obtainable.

Were it possible to separate the coal mines by the reciprocating machines from that produced by the rotary bar or chain machine, it is thought that the earnings of the machine runners would show a slight increase over the above. The foregoing amounts fairly represent the average earnings in the several subdivisions of mine labor as shown by the returns for the year that has just closed.

The following neatly compiled table was prepared by Mr. F. S. Brooks, Secretary of the Ohio Coal Association, to whom the department is indebted for permission to use in this report. This table was arranged to show the fluctuation in the prices of mining and day work extending over a period of years, and will be of value as a convenient and ready reference:

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Hocking Valley mining.	1892-3 and up to Feb.	11, 100%.	From Feb 17 1994	pril 21, 1894.		Apr		From June 1 1805 to	Oct 1, 1896.	Thom October 1 1806	to March 1, 1896.	3	to Oct. 1, 1896.	Potober	1896, to Jan. 1, 1897.	From Jan. 1 1807 to	date, and-
Pick.														1			
Mining, screened lump	8	70	\$	50		\$	60	\$	51		55	\$	61	\$	45		51
Machine Mining.																	
Run of mine, \$ lump price Entries dry, per yard Break-throughs—Entries Break between rooms Track layers, per day Inside day labor per day—	1 1 1 2	50 75 75 00 25 75	1 1	25 25 25 75 76 76		1	424 50 50 00 00 75	1 1 1	27 27 27 77 78 78	i	803 871 871 871 872 75	1 1 2	434 52 52 02 02 75	1 1	32) 12) 12) 62) 65 70	1	363 1 27 1 27 1 77 1 78
Dumpers trimmers, cagers. drivers and firemen, per day Outside day labor per day Pumpers, per month Water haulers, per day Room turning Engineers, carpenters, blacksmiths, machine haulers and cleaners, hostlers, couplers, greasers and alackhaulers	1 40 1 2	75 00 75 50	2	25 00 50 50	ac	85 1 2	75 50 00 75 50	2	50"	2	621 371 50 621 50	2	50	1	00	3	1 521 1 25 0 00 1 521 2 50

Oct. 15, 1896, Hand drilling changed from 21/2 to 8 cents.

Oct. 15, 1896, Machine work by the day suspended, to January 1, 1897, only

Nov. 15, 1896, Trappers changed from 65 cents to 70 cents.

Nov. 15, 1896, Harrison cutting—Rooms changed from 10 cents to 10% cents. Nov. 15, 1896, Harrison cutting—Entries changed from 11 cents to 11% cents.

F. S. Brooks,

COLUMBUS, OHIO, June 8, 1897.

Secretary.



### MINES OPENED, SUSPENDED AND ABANDONED.

From the accompanying table it will be seen that during the inspection year which closed on November 15th, 110 new mines were opened. This number has been exceeded but once during the period of which a record has been kept. These occur in twenty counties, the most prominent being Muskingum, Perry, Tuscarawas, Noble and Stark, which together furnish sixty four or fifty-eight per cent. of the list. In ten counties no new developments were reported.

In the column under suspended mines during the year, the total is found to be 119, an increase of twenty-nine as compared with 1895, then the largest number of which the department had a record. Suspensions are reported in twenty-three counties, the largest number reported appearing in the counties of Muskingum, Athens, Perry, Tuscarawas and Lawrence. In these five counties fifty per cent. of the year's list of suspended mines appear.

The returns show that 114 mines became exhausted or unprofitable and were abandoned during the year. These appear in twenty-two counties, Perry and Muskingum being the only ones particularly conspicuous. This is an increase of 100 per cent., as compared with the preceding year, and is greater by forty-seven than the number reported during 1891, the largest heretofore recorded. The large increase in the number of suspended and abandoned mines can be attributed to the deep suffering to which the mining industry has been subjected during the year. The phenominal increase in new mines as compared with the preceding year is not so easily accounted for. There is no doubt but in some instances they are small mines heretofore unknown to the department, while in other instances there are openings into the coal where it out crops on the hillside made to supply the wants of the immediate neighborhood. In Noble county there has been a steady increase in developments during the past four years, but the greatest occurred during 1896. This may indicate that the value of the Upper Freeport vein, which in this county reaches a high development, is becoming appreciated. Preceding the past year, the last development in Scioto county was reported in 1892. The number of large mines opened during the year can be accounted for upon the assumption that in anticipation of the awakening of the business of the country, capital is being invested in mining, in order to receive a share of the prosperity.

Table Showing the Number of Mines Opened, Suspended and Abandoned During the Year.

Counties.	No. of new mines opened.	No. of mines suspended.	No. of mines abandoned.
Athens Belmont Carroll Columbiana Coshocton	2 3 5 4	13 4 2 4 1	7 3 4 3 4
Gallia Guernsey Harrison Holmes Hocking	2 1 2	3 5 1 3 6	5 6 2 3 7
Jefferson	1 9 4	5 10	3 9 1
Monroe	1 16 10 14	3 14 4 12 1	4 11 6 14 1
Scioto	2 10 2	8 1 3 11 3	7 3 8
Washington Wayne Totals	,	119	114

## DETAILED LIST OF NEW MINES OPENED, SUSPENDED AND ABANDONED DURING THE YEAR.

New Mines.	Suspended Mines.	Abandoned Mines.
	ATHENS COUNTY.	
Elm Rock	Phœnix No. 1 Old Hickory West Floodwood. Furnace or No. 21 Coe Hill, Nos. 1 and 2 McKinney Carbondale, East Side Poston's No. 1 Arthur Glen Ebon No. 1 Brier Hill (new) Myrtle BELMONT COUNTY.	Trace Run or Beckler Picketts Greenbrier Wetzel Price Wolfe Coe Hill No. 1
Meister No. 2	Pittsburg Edward Tschappat Wheeling Valley O'Harrah	Heatherington
	CARROLL COUNTY.	
	A. Hewett Linden No. 1	Linden No. 1
	COLUMBIANA COUNTY.	
Smith	Pine GroveOld ShaftCherry Valley No. 2Nelson Burson	Old Shaft
	Coshocton County.	
Conesville No. 4 Conesville No. 5 Conesville No. 3 (new) Halls	Conley No. 3	Morgan Run No. 1 Morgan Run No. 2 Conesville No. 3 (old) Chestnut Hill
	Guernsey County.	
Halls No. 3	Smiths D. C. McCormick Murray	Norris Smith Hall's No. 1 Hall's No. 2
	GALLIA COUNTY.	Gander Hill
Carls No. 2ones Slope	,	

### INSPECTOR OF MINES.

## DETAILED LIST OF NEW MINES OPENED, ETC.—Continued.

New mines.	Suspended mines.	Abandoned mines.
	HARRISON COUNTY.	
McMillen No. 2	McMillen Bros	McMillen No. 1 Mill. Oak Hill. Croskey . Campbell No. 1. W. H. Birney.
	HOLMES COUNTY.  E. A. Peters	Holmes Co. McNara.
	Hocking County.	
	Consolidated	Monday or No. 3. New Pittsburg No. 6. No. 19 (North).
	JACKSON COUNTY.	
Monroe	Chapman	Glen Nell. Keystone Price Bros. Huron. Benton Slope. Buckeye No. 1. Foster.
	Jefferson County.	
	Brilliant	Dillon No. 1. Cannal. Asa Permarr.
	Lawrence County.	
Phillips Nos. 1 & 2	Richey Nos. 1, 2 and 3	Carey Nos. 1 & 2. Cook. Lynd No 1. Apels No. 2. Murdock. Blackwell No. 1. Shaffer. Miller No. 2
	MAHONING COUNTY.	
Stoffer Shaft		New Witch Hazel.
	MEIGS COUNTY.	
Springhton Glendale		

## DETAILED LIST OF NEW MINES OPENED, ETC.—Continued.

New mines.	Suspended mines.	Abandoned mines.
	Monroe County.	
Deunis	Woodland	Howell. Carlton No. 2. Thos. McBroom. Woodland.
	Muskingum County.	
King Dresden Comer Lane Harpers No. 3 Spinks Orange Hill Edwards McConnell Granger Hopkins Walker No. 2 Emery No. 2 Horner McCann No. 3 Smith	McCann No. 2 Moores No. 4 McCann No. 1 Harpers 4 Foot Hock Sandle	Sandle. Taylor. Oak Grove. Bell. Eppley.
	Noble County.	•••••••••••••••••••••••••••••••••••••••
Boyd	Matheny	Davis No. 1. Whicker. Merry. Morrison No. 1. Braud.
•	PERRY COUNTY.	
Acker No. 2 Chestnut Hill No 2	Co-operative No. 19 No. 12 or 13 South Side Spring Valley Star No. 39 John Green Martin Clover Hill Nugent No. 3 Nugent No. 6.	Clover Hill. Nugent No. 3. Nugent No. 6. Aker No 1. Chestnut Hill No. 1. No. 37 West Side. Butler No. 1. No. 75. Lexington Clay. No. 45. Rogers No. 1. Davis. No. 19. Star.
	PORTAGE COUNTY.	
	Whip-poor-will	Scott.

## INSPECTOR OF MINES.

## DETAILED LIST OF NEW MINES OPENED, ETC.—Concluded.

New Mines.	Suspended Mines.	Abandoned Mines.
·	SCIOTO COUNTY.	
	STARK COUNTY.	•
Nutwood	Davis No. 2	Massillon City. Bolinger.
Everhart No. 1 Everhart No. 2	Slusser	Jacob Meiser. Hoover & Simmons.
Pefferby & McFadden Crystal Springs Eureka	Anchor Tile and Clay S. Massillon	T. G. McMillen, Anderson.
Massillon Standard		*********** ******************
	SUMMIT COUNTY.	
White Spar Farmers Slope	Turkey Foot	
	TRUMBULL COUNTY.	
••••••	Addison Davis Foraker No. 2	Addison. Foraker No. 2. Dunningan.
	TUSCARAWAS COUNTY.	, and the second
Rock Cut Horns	Acme	Gold Dust. Oliver.
Paul Pocock Syndicate	Acme Royal Buckhorn Somerdale No. 1 " No. 2	Mineral Ridge. O'Donnell No 2. Wm. Voor
Advance Fire Clay Co	Odberts No. 1	Simon 1. Hensel.
Brock Hill No. 2	" No. 2	
Clover Hill	" No. 3 Royal C. & C Penn I. & C. Co	
Kinsley		
	VINTON COUNTY.	
•••••	Nebraska & Ohio Hanging Rock No. 4	
••••••••••••	Washington County.	
	Marsh FarmBazwell	Shiers Bazwell.
	WAYNE COUNTY.	
	 	. New Chippewa.

### INSPECTIONS OF MINES MADE DURING THE YEAR.

The following tables are designed to exhibit in detail the number of inspections that were made during the year just closed of the mines in the several counties of the state.

By an examination it is seen that the visits amount in the aggregate to 1835, a decrease of 118 as compared with the preceding year. It is a loss of 402 visits, when compared with the report of the year 1893, during which there was the greatest production of coal in the state's history, when the number of inspections exceeded those of any year of which the department has a record. Although the year's record is the lowest since the department has been increased to seven members, it is found that the number of visits exceed by four the average number made by the members of the department during the past eight years.

The greatest number of inspections were made in Jackson, Perry, Muskingum, Athens, Stark, Columbiana, Belmont and Tuscarawas counties in the order named, in all of which they exceeded one hundred.

There arose no extreme peril during the year which necessitated the continual attention of the inspector, hence no unusual number of visits were made to any one mine.

The second table exhibits the number of visits that each inspector made during the year, while the third shows the number of visits made in each of the mining districts. It is believed that during no year of the industry's history have the mines worked with such irregularity as during the one that has just closed. At many of the large mines which hitherto worked with great regularity, the time of operation was reduced to three days a week, and in a number of instances, three days during two weeks was the prevailing time throughout a large portion of the year. Entire suspensions during long intervals were unusually common even in the most favored mining districts of the state. It is during a period in which the mines are operated at irregular intervals that the time of the inspector is consumed in traveling to extreme portions of his district only to find the mines suspended. Thus it is that the inspector will sometimes make several visits without being able to make a thorough inspection, although the mines may have been in operation at times during the intervals.

It will be seen that under such adverse conditions in the coal trade that the time of the inspector is largely taken up without profit to the department and often without their being able to make a creditable showing for themselves. It is believed, however, that when the time that was lost in traveling to suspended mines is taken into consideration, that the work of the District Inspectors will compare favorably with that of former years.

TABLE SHOWING THE NUMBER OF VISITS MADE IN EACH COUNTY DURING THE YEAR.

		-													
Counties.	No. of mines vis- ited once.	No. of mines vis- ited twice.	No. of mines vis- ited 3 times.	No. of mines vis- ited 4 times.	No. of mines vis- ited 5 times.	No. of mines vis- ited 6 times.	No. of mines visited 7 times.	No. of mines visited 8 times.	No. of mines visited 9 times.	No. of mines vis- ited 10 times.	No. of mines vis- ited 11 times.	No. of mines vis- ited 12 times.	No. of mines vis- ited 14 times.	No. of mines visited 15 times.	Total.
No. of visits.	1	2	3	4	5	6	7	8	9	10	11	12	14	15	
Athens Belmont Carroll Carroll Columbiana Coshocton Gallia Guernsey Harrison Holmes Hocking Jackson Jefferson Lawrence Mahoning Medina Meigs Morgan Monroe Muskingum Noble Perry Portage Scioto Stark Summit Trumbull Tuscarawas Vinton Washington Wayne	31 12 4 19 30 32 22 2 2 2 2 2 2 2 3 3 1 3 3 3 3 3 3 3	6 4 7 7 7 4 2 2 2 0 0 8 10 3 21 4 2 2 2 0 0 6 3 1 1 1 9 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9 15 2 9 3 0 7 1 1 0 2 15 8 1 2 2 2 10 0 0 0 10 0 0 0 0 0 0 0 0 0 0	98001600003661000110003300011000	3 0 1 2 0 0 0 3 0 0 0 0 5 2 0 0 0 0 0 2 0 0 0 1 1	2 1 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	1	1	1	1	1	1	153 121 46 128 128 51 5 71 34 12 152 170 82 27 73 5 9 154 57 166 9 1 139 17 6 109 8 12 5
Totals	547	161	119	45	27	11	10	3	3	4	1	1	1	2	1835

TABLE SHOWING THE NUMBER OF VISITS MADE BY EACH INSPECTOR DURING THE YEAR.

															=
Name of Inspector.	No. of mines vis- ited once.	No. of mines vis- ited twice.	No. of mines visited 3 times.	No. of mines visited 4 times.	No. of mines vis- ited 5 times.	No. of mines vis ited 6 times.	No. of mines visited 7 times.	No. of mines vis- ited 8 times.	No. of mines visited 9 times.	No. of mines visited 10 times.	No. of mines vis- ited 11 times.	No. of mines vis- ited 12 times.	No. of mines vis- ited 14 times.	No. of mines vis- ited 15 times.	Totals.
No. of visits.	1	2	3	4	5	6	7	8	9	10	11	12	14	15	
Chief Inspec'r	3	3	0	0	0	0	0	0	0	0	0	0	0	0	9
Llewellyn	28	18	17	10	5	1	3	0	1	0	0	0	0	1	231
Beattie	65	35	21	12	5	2	2	0	1	0	0	0	1	10	320
Miller	194	45	18	1	3	Ιī	1	i	Ō	ì	Ò	Ŏ	Ō	Ŏ	388
McGough	74	10	25	16	2	l î	i	ō	ŏ	Ō	ŏ	ŏ	ŏ	ŏ	256
Love	77	12	13	ő	4	2	i	ŏ	ŏ	ľĭ	ŏ	ŏ	ŏ	ŏ	189
Jones	75	23	14	5	4	ī	Ô	2	lŏ	Ô	ŏ	ĭ	Ĭĭ	ŏ	251
Davis	47	18	12	2	3	1 4	2	õ	ŏ	ŏ	ĭ	Ô	Ô	ŏ	191
<b>₩</b>									<u> </u>					!	101
Totals	562	164	120	46	26	12	10	3	2	2	1	1	2	1	1835

TABLE SHOWING THE NUMBER OF VISITS MADE IN EACH DISTRICT DURING THE YEAR.

Districts.	No. of mines vis- ited once.	No. of mines visited twice.	No. of mines vis- ited 3 times.	No. of mines visited 4 times.	No. of mines vis- ited 5 times.	No. of mines visited 6 times.	No. of mines visited 7 times.	No. of mines vis- ited 8 times.	No. of mines visited 9 times.	No. of mines visited 10 times.	No. of mines visited 11 times.	No. of mines visited 12 times.	No. of mines visited 14 times.	No. of mines visited 15 times.	Totals.
No. of visits.	1	2	3	4	5	6	7	8	9	10	11	1%	14	15	
First District. Second Dist Third Dist	28 65 188	18 34 44	17 21 17	10 12 2	5 5 3	1 2 1	3 2 1	0 0	1 0 1	0 1 1	0 0	0 0	0 0	1 1 0	231 320 382
Fourth Dist Fifth District. Sixth Dist Seventh Dist	73 74 72 47	10 12 25 18	25 18 14 12	14 1 4 2	3 5 3	1 1 1 4	0 2 0 2	0 1 2 0	1 0 0	1 0 0	0 0 0 1	0 0 1 0	0 0 1 0	0 0	264 194 253 191
Totals	547	161	119	45	27	11	10	3	3	4	1	1	1	2	1835

## SCALES TESTED AND MINE CARS MEASURED DURING THE YEAR.

When it occurs that the mineral wealth upon being removed from nature's store house is being inaccurately credited, it becomes of the utmost importance that no time is lost in correcting the wrong. If the injustice is imaginary rather than real, it is equally important that the misconception be demonstrated before serious trouble ensues. Hence it is one of the rules of the department that an appeal to examine scales be given precedence over all duties, except in case of a fatality or where life is in peril.

During a period in which the mining industry is suffering from a business depression, a feeling of unrest and distrust is certain to prevail among the craft. In no branch of the department's work does this spirit become more manifest than in the demand upon it to examine into the accuracy of the scales used in the weighing of coal as it comes from the working chambers of the mine.

From an examination of the reports made by the district inspectors it is found that the accuracy of ninety-three sets of scales were determined during the year, as compared with ninety-six sets in 1895, sixty-four in 1894 and one hundred and twenty during 1893. Scales were tested in sixteen counties; sixty-two per cent. of the examinations reported occuring in the counties of Stark, Jackson, Perry, Athens and Belmont. The investigations revealed the facts that twenty-eight sets or thirty per cent. of the scales were weighing incorrectly as compared with thirty-two per cent. in 1895 and forty-two per cent. during 1894. Of those found inaccurate during the year, five are reported as being against the miners and one against the operator. The beneficiary of the twenty-two remaining sets is not given. The greatest number of inaccuracies occurred in Stark county, where they are given as six. At the Minersville mine in Meigs county the cars were measured and found to contain a greater amount of coal than was being credited to the miners.

During the nine years that the writer has been in charge of the department, 683 sets of scales have been tested. Of this number 40 sets or fifty-eight and eight-tenths per cent. were found to weigh incorrectly, 378 or fifty-four and six-tenths of the tests made during this time occured during the industrial depression, which has existed during the past four years. Of this number 96 sets were found inaccurate, seven of which weighed in favor of the miners and 42 sets were against them. As to which party was favored by the remaining forty-seven is not given.

#### LIST OF SCALES TESTED AND MINE CARS MEASURED.

#### ATHENS COUNTY.

Oakdale—Tested November 22, 1895; found a curate.

No. 6—Tested November 26, 1895; found accurate. (Two sets tested.)

No. 4—Tested May 1; found accurate. (Two sets tested.)

Sedalia—Tested August 19; found accurate.

Hiawatha—Tested September 26: found correct.

No. 6—Tested November 11; found correct. (Two sets tested.)

#### BELMONT COUNTY.

Brooks—Tested November 29, 1895; found correct. Cochran's—Tested December 12, 1895; found correct.

Taggart's—Tested January 29; found 400 pounds to the ton in favor of the miners. Had them adjusted after which they weighed accurately.

Maple Hill—Tested January 30; found accurate. (Two sets tested.)

Ætna-Standard-Tested April 17; found accurate.

Standard-Tested May 27; found accurate.

Koehnline—Tested July 23; found inaccurate. Had them adjusted when they weighed accurately.

Meister & Son-Tested September 21; found inaccurate. Had them adjusted.

#### CARROLL COUNTY.

Sherrodsville No. 3—Tested November 18, 1895; found to vary 200 pounds on one bearing.

Allen shaft—Tested January 27; found accurate.

Sherrodsville No. 5—Tested May 12; found accurate.

Linden Nos. 2, 3, 4 and 5—Tested August 4; found to vary 200 pounds.

Sherrodsville No. 3—Tested August 19; found accurate.

#### COLUMBIANA COUNTY.

Central Slope—Tested November 20, 1895; found forty pounds in favor of the company.

Folts—Tested January 31; found ten pounds in favor of the miners.

#### COSHOCTON COUNTY.

Morgan run—Tested April 29; found inaccurate. Orange No. 2—Tested April 30; found correct. Hudson No. 1—Tested May 1; found correct. Morgan run—Tested June 10; found correct.

#### GUERNSEY COUNTY.

Walhounding—Tested November 27, 1895; found correct. (Two sets tested.) Hartford—Tested May 20; found correct. Nicholson—Tested June 30; found accurate.

Central—Tested October 26; found accurate. (Two sets tested.)

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#### HOCKING COUNTY.

New Pittsburgh No. 7—Tested June 25; found track scales incorrect,

New Pittsburgh Nos. 8 and 9—Tested June 25; found box car scales incorrect. New Pittsburgh No. 9—Tested August 28; found box car scales incorrect and

ordered them repaired.

#### JACKSON COUNTY.

Iron Valley-Tested November 18, 1895; found correct.

Wellston No. 3—Tested December 23, 1895; found correct.

Jones No. 2—Tested December 23, 1895; found accurate.

Riverton—Tested January 16; found sluggish and were repaired.

Superior No. 1—Tested February 28; O. S. Hopper scales; found correct. C. H. & D. Hopper scales were sluggish but correct.

Price-Tested February 28; found correct.

Emma No. 1-Tested June 13: found C. H. & D. Hopper scales correct.

Emma No. 1—Tested June 15; found the O. S. Railway scales sluggish.

Superior No. 5—Tested June 9; found light and were adjusted.

Emma No. 2—Tested September 9; found slightly incorrect, and were ordered repaired.

Emma No. 2—Tested September 25; found improved but not correct.

Emma No. 2—Tested October 14; found correct.

Wellston No. 3—Tested November 2; found correct.

#### JEFFERSON COUNTY.

Rolling Mill No. 2—Tested January 17; found one set correct and one incorrect.

Long Run—Tested February 4; found 150 pounds heavy on lower bearing.

McFadyen-Tested May 8; found correct.

Bergholz-Tested November 13; found accurate.

New slope—Tested November 13; found accurate.

#### MEIGS COUNTY.

Charter Oak—Tested December 10, 1895; found discriminating ten pounds against the miners.

Minersville—On December 11 and 12, 1895, mine cars were measured and found inaccurate.

Peacock Mine—Tested December 14, 1895; found correct.

Syracuse Shaft—Tested May 28; found accurate.

Peacock Mine—Tested May 28, found accurate.

#### PERRY COUNTY.

Lower-Tested November 27, 1895; found accurate.

Furnace No. 2—Tested December 2, 1895; found accurate.

Zanesville No. 1—Tested January 28; after shortening the extension rod we left them weighing correctly.

Rend's No. 3—Tested March 4 (two sets tested.) One weighed accurately, while the other was found to weigh from 900 to 2,000 pounds light and were ordered repaired at once.

No. 21—Tested June 1; found accurate. (Two sets tested.)

Star-Tested June 17; found accurate.

Shawnee Valley—Tested July 6; found inaccurate and were ordered repaired.

XX Furnace—Tested August 25; found accurate.



#### STARK COUNTY.

Western Ohio No. 1—Tested November 23, 1895; found accurate.

Pigeon Run—Tested December 10, 1895; found inaccurate.

West Massillon No. 2-Tested December 14, 1895; found correct.

Woodland-Tested December 18, 1895; after being repaired weighed accurately.

Willow Spring-Tested December 24, 1895; found accurate.

Pigeon Run-Tested January 7; found inaccurate.

Monongahela and L. E. No. 1—Tested January 10 and 17; found correct.

Pigeon Run-Tested March 17; found incorrect.

Western Ohio No. 1—Tested March 21; found correct.

West Massillon No. 2-Tested April 7; found correct.

Midvale-Goshen No. 4-Tested April 16; found correct.

Warwick-Tested April 21; found correct.

West Massillon No. 3—Tested September 14, I5 and 16; on former dates found incorrect, while on the latter they weighed accurately.

Crystal Springs-Tested September 16; found correct,

Massillon Brewing Co.—Tested September 16; found incorrect.

Anderson-Tested November 14; found correct.

#### SUMMIT COUNTY.

White Spar-Tested May 6; found correct.

#### TUSCARAWAS COUNTY.

Goshen—Tested December 2, 1895; found inaccurate.

#### VINTON COUNTY.

Hanging Rock-Tested November 18, 1895; found accurate.

#### WAYNE COUNTY.

Dalton—Tested December 20, 1895; found correct.

Dalton-Tested September 17; found accurate.

#### PERMANENT IMPROVEMENTS.

The accompanying tables are designed to exhibit the character and number of permanent improvements that have been made in and about the mines of the state.

The first table gives the character and number of improvements that were made in each of the inspection districts during the calendar year, which extends from November 15, 1895, to November 15, 1896. From the reports made by the several inspectors, it is found that fifty-six furnaces were erected, twenty-one fans installed, ninety-three air shafts were sunk, and fourteen ventilating baskets were placed in ventilating shafts; also, in order to provide ready and available means of escape, eighty-one second openings were provided, five pairs of safety catches were attached to cages, seven stairways were put in position, and three speaking tubes erected. The total number secured during the year is given as 280. This number has been exceeded but twice during the history of the department, in 1893, which was the banner year of the department in this particular and in 1895.

The second table exhibits the number of permanent improvements made during the thirteen years that a record has been kept, the total of which is 2,412. It will be noticed that the number has increased, as the corps of District Inspectors has been reinforced, thus indicating the wisdom of legislation.

TABLE SHOWING THE NUMBER AND CHARACTER OF THE PERMANENT IMPROVE-MENTS MADE IN THE MINES OF THE STATE DURING THE INSPECTION YEAR.

Name of District Inspector,	Furnaces.	Fans.	Air shafts.	Second openings	Safety catches.	Stairways.	Speaking tubes.	Ventilating baskets.	Totals.
Llewellyn Beattie	4 1 7	2 4 3 2 8 6	8 2	8	1	1	1	1	21 8
Miller	7	3	19	22				6	57
McGough	13	2	13	16				6 3	47
Love	1	8	3	10					17
Jones	29	6	39	21	3	6	2	4	110
Davis	1	1	9	8	1	• • • • • • • • • • • • • • • • • • • •			20
Totals	56	21	93	81	5	7	3	14	280

TABLE SHOWING THE NUMBER AND CHARACTER OF THE PERMANENT IMPROVEMENTS MADE IN THE MINES OF THE STATE FROM 1884 TO 1896 INCLUSIVE.

Years.	Furnaces.	Fans.	Air shafts.	Second openings.	Safety catches.	Stairways.	Speaking tubes.	Ventilating baskets.	Totals.
1884	43 45 13 89 43 42 57 53 37 77 55 66 56	10 19 6 9 4 18 20 17 26 35 18 17 21	45 22 50 52 57 66 55 65 131 106 105 93	10 7 17 21 46 26 27 67 60 60 81	13 7 8 19 13 16 7 9	12 8 12 8 11 19 7 19 11 11	3 4 5 4 5 3 3	2 4 9 13	53 122 63 113 141 146 212 194 181 354 269 284 280
Totals	626	215	847	422	110	120	30	42	2,412

## MINES WHICH GENERATE LIGHT CARBURETTED HYDRO-GEN GAS. (FIRE-DAMP.)

This dreaded enemy to the craft was present in thirty-eight mines of the state during the past year, as compared with a like number during the two preceding years. In Athens county, Mine No. 16, was added to the list, and in Stark the list was increased by the Minglewood and Warwick shafts. Noble county reappears in the roll of counties after an absence of several years, the Glenwood shaft having been re-opened. Perry county also was added, Rend's No. 3 having been reported. The old Shaft mine at Salineville having been abandoned, was stricken from the list, as were also the Taylor and Bergholz mines in Jefferson, the Greenamyer shaft in Mahoning and Filers New Shaft in Portage county, not being reported, removes both of these counties from the roll. The list contains nine counties as during the preceding year.

But one fatality was attributed to this source during the year. Upon re-opening the Glenwood shaft in Noble county, Butler McMillen was placed in charge. It is evident that he was unfamiliar with the dangers of this mine, as on May 10th, the ventilation having been cut off for twenty-four hours, while in an attempt to explore the interior of the mine with a naked lamp, he met a body of gas, which exploded, causing his death the following day. This casualty is deeply regretted, as it is the first fatality from this source that has occurred during the past two years. It is believed that had he possessed a proper knowledge of mining, this would have been averted. To the presence of this deadly enemy to the craft has been attributed many deplorable fatalities. The fact that the mines of Ohio have been so singularly exempt from these horrors is a tribute to the prudence of those who have them in charge.

#### MINES WHICH GENERATE LIGHT CARBURETTED HYDROGEN GAS. (FIRE DAMP.)

	<del></del>	
	ATHENS COUNTY.	
No. 10	Phœnix No. 2	No. 24 Oakdale Daleton
	BELMOMT COUNTY.	
Captina	Schnegg	••••••
	COLUMBIANA COUNTY.	
New Shaft	Central Slope	Folts Cherry Valley No. 3 Salem
-	Guernsky County.	
Walhonding Hartford	Cisco Trail Run	Central
	Jackson County.	
Wainwright	Fluhart No. 3	
	Jefferson County.	
BrilliantGravel Shaft	High Shaft Calumet Clay	Bustard
	Noble County.	
Glenwood		•••••••
	PERRY COUNTY.	
Rends No. 3	,	••••••
	STARK COUNTY.	
Minglewood Shaft Minglewood Slope		Warwick

# CHARACTER OF DEVELOPMENT AND MODE OF VENTILATION.

In the following table it is the design to exhibit the number of mines that have been developed by each of the several systems employed in the industry, also the number of mines that are ventilated by the various devices erected for that purpose, those that are dependent upon the laws of nature for a supply of fresh air, and the number of which, the kind of development and the mode of ventilation are unknown.

It will be seen that at the close of the year there were 1,203 mines in the state; of this number 821 or sixty-eight per cent. are drift openings, 149 are shafts and 66 are slopes. By adding the number of drifts to the number of shafts, it is found that 215, or but seventeen and

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there-fourths per cent. of the mines are below drainage. In the list of small mines of which the mode of development is unknown, in 1892 numbered 458, while during 1895 it had been reduced to 220. The number has again been reduced to 167. These are domestic mines, either located in isolated places or of such minor importance that the inspector has failed to make his record complete. The greatest number of shaft mines are in Jackson, Stark and Mahoning counties; the greatest number of slopes are in Jackson county and the largest number of mines is reported in Muskingum county. The number of fans in use is given as 134, the same as during the preceding year. The greatest number appear in Jackson, Athens, Hocking and Columbiana counties. In thirteen counties fans are not used. There are 281 furnaces and thirtyseven fire baskets employed to produce ventilating current, the former a gain of three, and the latter of one, as compared with the preceding year. Exhaust steam is relied upon at fifty-two mines. At the Hutson Run mine in Medina county both furnace and exhaust steam are relied upon. At the Hern Brook, West Massillon No. 2, Upper Pigeon Run, Clover Hill, Woodland and Warwick mines in Stark county, both fan and exhaust steam are employed. At Young's shaft in the same county, exhaust steam and a fire basket are utilized. At Sherrodsville No. 5, in Carroll county, both fan and furnace are provided. Thus it will be seen that in the mines of the state 505 appliances have been furnished in order to supply adequate ventilation.

TABLE SHOWING THE NUMBER OF MINES EMPLOYING THE VARIOUS METHODS OF VENTILATION AND THE THREE KINDS OF OPENING.

	Ch	aracto	er of	oper	ing.		M	Mode of ventilation.							
Counties.	Drift.	Shaft.	Slope.	Small mines, kind of opening not known.	Totals.	Fan.	Furnace.	Fire basket.	Steam jet and ex- haust from pumds.	Natural.	Small mines, method of vent. not known.	Totals.			
Athens	41 69	12	3 5	1	57	18 7	8			29	2	57			
Belmont Carroll	19	2	ð	1	77 21	3	35	4	•••••	30	1 1	77			
Columbiana	41	1 8	8	1 11	68	11	7 13	1	4	8 <b>26</b>	13	22 68			
Coshocton	33	l °	٥	11	33	11	15	3	*	20 15	19	33			
Gallia	2	•••••	•••••	3	5 5	••••••	2	ာ	•••••	10	3	50 5			
Guernsey	20	7	3	6	36	8	8	•••••	1	13	6	36			
Harrison	51	3	i	1	55	1 1	i	2		52	١	55			
Holmes	16		•	•••••	16	•••••	2	_	•••••	14	•••••	16			
Hocking	24		1	1	26	13	4			8	1	26			
Jackson	34	29	11	4	78	38	14	1		20	5	78			
Jefferson	42	7	2	2	53	6	12	ī	2	30	2	53			
Lawrence	49			3	52		3	ī		43	5	52			
Mahoning	13	20	6	1	40	3	6		7	23	1	40			
Medina	2	2	5	1	10	2	2		4	2	1	11			
Meigs	24	1	1	2	28	2	l 8			16	2	28			
Morgan	1		1		2		2	<b></b>				2			
Monroe	7	2			9		2			7		8			
Muskingum	90	1	· · · · · ·	43	134		22	5		64	43	134			
Noble	31			19	50		1	1	1	28	19	50			
Perry	60	5	3	21	89	6	13	9	1	38	22	89			
Portage	1	6	· • • • • • • • • • • • • • • • • • • •		7	5	ļ		•••••	2		3			
Scioto	2	·····		1	3					2	1	108			
Stark Summit	51 6	28 5	4	18	96 16	8	35	5	24	15 9	16 1	108			
Trumbull	2	6	3	8	14	,			2	10	2	14			
Tuscarawas	71	1 0	5	20	96	1	58	2	-	16	19	96			
Vinton	13	2	"	5	20	2	6	۔ ا	l	7	5	20			
Washington	3	"		4	7	-	2		l	1	4				
Wayne	3	2			5		l		1	<b>.</b>	4	l i			
•		<u> </u>		105		104				F00		<u>'</u>			
Totals	821	149	66	167	1,203	134	281	38	52	<b>528</b>	179	1,212			

Hutson Run mine—Medina county uses furnace and exhaust steam.

Hern Brook, West Massillon No. 2, Upper Pigeon Run, Clover Hill, Woodland and Warwick mines—Stark county use fan and exhaust steam.

Vonna's Shaft mine.—Stark county uses exhaust steam and fire backet.

Young's Shaft mine—Stark county, uses exhaust steam and fire basket. Sherrodsville No. 4 mine—Carroll county, uses fan and furnace.

### POWDER CONSUMED IN THE MINES.

This is the fifth attempt to ascertain the amount of powder consumed in the mines of the state. It is to be regretted that a full and complete return has never been secured, and it is doubtful if it ever will be: This is owing to the fact that many of the mines are located near large towns as Massillon, Corning, Wellston, Bellaire, Bridgeport and others where the miners buy largely of local dealers who keep no account that will show as to the mine at which the powder was delivered. These people also sell to the general trade and in but few instances keep an account of their transactions. In some cases a portion of the miners buy their powder from their employers, while others buy elsewhere, in other instances the mine operators, in addition to their miners, sell to quarrymen and contractors, and frequently use large quantities in outside transactions, and therefore are unable to make a reliable report.

An examination of the accompanying table reveals the fact that of the 921 firms and persons who operate mines in the state, 512 or fifty-five and six-tenths per cent. were able to make returns as to the amount of powder that was consumed in their mines during the year. It is found that those who made returns produced 9,774,683 tons of coal, an amount which equals seventy-five and seven-tenths per cent. of the state's production during the year. In 1895 fifty-five per cent. of the operators reported and eighty-one and seven-tenths of the output was mined by the use of powder, while during the preceding year fifty-five and three-tenths per cent. of the operators reported, showing that they had mined seventy-eight and two-tenths per cent. of the output.

The returns further show that in the production of the above amount of coal there was exploded 176,920 kegs of powder, which equals 4,423,000 pounds or 2,211½ tons. The greatest production of coal to the keg consumed occurs in Mahoning county, and the lowest was in Wayne, both of which are unimportant in the point of production. It is found that sixty-two and eight-tenths per cent. of those who made returns as to the amount of powder used, operated in the ten counties which lead in the coal production of the state. These return eighty-five and onefourth per cent. of the coal returned in the subjoined table. These counties embrace the thick, thin and intermediate seams of the state and many of the mines are equipped with the most modern machinery. The returns show that the average production was fifty-seven and eighttenths tons to the keg of powder consumed. This amount it will be seen is two and one-half tons above the year's average of the state which is found to be fifty-five and one-fourth tons as compared with fifty-eight tons during 1895, sixty-one and one-tenth in 1894, sixty-four and fourtenths in 1893 and sixty-three and three-tenths during 1892.



In the preceding report attention was called to the belief that during the past year or two, during which there has been fierce competition for trade, the manufacturers of powder were resorting to the use of material that created greatly increased quantities of smoke. It is further claimed that the tumes given off were much more injurious to health than those created by the powder that was used during former years when its price was higher and the competition in the trade less severe. It was fully intended that the department should give the matter a full investigation during the year that has just closed, but owing to the irregularity with which the mines were operated, and the want of an appropriation with which to employ a chemist and make the necessary tests, the matter was not taken up. It is hoped that during the coming year the industry will enjoy greater prosperity, and should the complaint continue, the subject will be thoroughly gone into, and if the assertions of the craft and the suspicions of the department be verified, a vigorous effort will be made to prevent the use of any but the best powder in the mines of the state.

TABLE SHOWING THE AMOUNT OF POWDER CONSUMED IN THE MINES OF THE STATE AND THE NUMBER OF TONS OF COAL PRODUCED TO THE KEG.

	P <sub>a</sub>	ਰੁਖ	8-8	,	70 %
	o. of firms which reported	which report.	ons mined by firms which reported.	Ę	No. tons mined to keg of pow- der used.
	of firms iich repo	8 2	Tons mined frms wh reported.	No. of kegs ported as used.	o. tons mi to keg of p der used.
Counties.	gr 1 r	firms I not		o. of ke ported used.	8 80 8
	of icl	ig.	# # &	% t 8	2 2 2
	у. Т.	્રાંક	# F 5	. 2. 2.	45.5
	No.	No. fir did n	£	ž	ž
Athens	30	11	900.685	7,997	113
Belmont	34	34	684,194	5,323	129
Carroll	ii	5	273,217	7,035	39
Columbiana	32	25	472,389	4.127	114
Coshocton	7	12	172,643	1.448	119
Gallia	3	1	6,650	94	71
Guernsey	11	13	602,298	3,118	193
Harrison	12	37	8, <b>44</b> 8	84	101
Holmes	7	5	7,769	105	74
Hocking	10	7	689,024	5,459	126
Jackson	44	10	1,451,033	53,392	27
Jefferson	14	31	554,313	3,593	154
Lawrence	15	10	68,477	1,400	49
Mahoning	12	26	20,418	83	246
Medina	8		195,669	5,274	37
Meigs	23	4	243,775	3,841	63
Morgan	2	•••••••	19,080	210	91
Monroe	1	4	2,440	25	98
Muskingum	37	70	168,529	3,691	46
Noble	15 49	26 19	33,646	415	81 69
Perry	3	19	1,384,552	20,001	23
Portage	3	3	48,060	2,108	23
I	45	26	1,003,284	32,937	30
StarkSummit	12	3	49,928	2,053	24
Trumbull	5	5	3,984	2,055 51	78
Tuscarawas	53	16	594,622	8,219	72
Vinton	10	7	43,982	1,076	41
Washington	2	2	2,506	23	109
Wayne	5		69,058	3,738	18
Totals	512	409	9,774,683	176,920	551

#### OIL USED FOR ILLUMINATING PURPOSES IN THE MINES.

This subject was quite exhaustively treated in the preceding report of the departement, in which the methods employed in analyzing miners lamp oil were explained in such a manner that they could be put to a practical test by any one.

During the closing months of the year 1895 there was placed upon the market large quantities of oil of a dark green color, which presented a fine appearance. Notwithstanding that it was of lawful gravity, upon burning in a miner's lamp it gave off an excessive quantity of smoke. The methods of analysis that were adopted during the former year were employed during the early months of the one just closed. Numerous

samples were secured and analyzed in the belief that they contained rosin oil as their color and the quantity of smoke generated strongly indicated. In nearly every instance a quantity of heavy wax was secured, but upon washing it in gasoline it would refuse to harden as does the nitro product of rosin oil.

During the fore part of April, while engaged in nitrating what appeared to be a very impure sample of oil, a violent explosion occurred. As this was the first accident which the writer had met with in testing oil, it was attributed to some ingredient hitherto unused in the manufacture of oil. What remained of the sample which exploded, together with several others, were forwarded on April 15th to Mr. Arthur W. Burwell, Ph. D., a consulting chemist of rare skill in the analysis of oil, doing business in the Atwater Block at Cleveland. The sample referred to he found to contain eighty-three and thirty-five one-hundredths per cent. of cottonseed oil and sixteen and sixty-five one-hundredths per cent. of petroleum oil, the latter having a specific gravity of 84 degrees. A sample from the Greendale Furnace Co.'s store at Murray City, which had a specific gravity of twenty-three and four-tenth degrees was found to contain sixty-eight and five-tenth per cent, of cottonseed oil and thirty-one and one-half per cent. of paraffine oil of a gravity of twenty-eight per cent. A sample from the store at Blatchford compounded by the same firm and having a specific gravity of twenty-three and three-tenths per cent was composed of seventy and one-tenth per cent of cottonseed oil and twenty-nine and nine-tenths per cent. of paraffine oil of twenty-eight and one-half degrees specific gravity. A sample received from Beloit was composed of cottonseed oil seventy-two and forty-five one-hundredths per cent. and paraffine oil twenty-seven and fifty-five one-hundredths per cent. the latter having a specific gravity of twenty-nine and eigth-tenths degrees. A sample from Nelsonville contained sixty-seven and seventy-six one-hundredths per cent. of cottonseed oil and thirty-two and twenty-four one-hundredths per cent. of paraffine oil and twenty-eight and one-half degrees specific gravity, while another from the same vicinity consisted of seventy-four and seventeen one-hundredths per cent. of cottonseed oil and twenty-five and eighty-three one-hundredths per cent. of thirty and threetenths degrees specific gravity paraffine oil. A third one was composed of seventy-three and twenty-four one-hundredths per cent. of cottonseed oil and twenty-six and seventy-six one-hundredths per cent, of paraffine, the specific gravity of the latter being thirty degrees. On April 28th a sample was sent to Mr. Burwell from East Palestine and was found to contain seventy-five per cent. of cottonseed oil and twenty-five per cent. of a heavy mineral oil, having a specific gravity of thirty and one-half degrees. In the report of this oil Mr. Burwell says that this heavy mineral oil may be a paraffine oil, but he is more inclined to the belief that it is a heavy distillate or a reduced distillate from the orginal crude, and that it must smoke as badly as oils which experiments show to generate such a quantity of smoke that it would be impossible to use them anywhere. In the case of the oil from which the explosion occurred it was Mr. Burwell's opinion that the heavy distillate had taken up a large amount of the alchohol which it did not give up when the water was added, thus forming a dangerous mixture of alcohol and nitric acid, which probably caused the explosion. Mr. Burwell in his report says that in none of the oils was he able to find any traces of rosin oil or bodies of like description. By experiments he found that oils made as these oils are, smoke almost if not quite so badly as oils containing lighter petroleum, the specific gravity of which had been reduced with rosin oil. He also found that certain paraffine oils of legitimate origin give almost as hard a nitro product as the rosin oils. He says that he used the words paraffine oil, meaning to convey the idea that the oils so designated are the product of the distillation of the heavy parts of crude petroleum and are totally unfit for use in a mine.

After securing the analysis and report of the above samples it became evident that an analysis could not always be relied upon to determine the advisability of an oil being used in a mine. And the advisability of again returning to a smoke test which had been discarded was considered. Several devices were tried before a plan was adopted, the development of which was assigned to District Inspector Beattie, who entered the laboratory of the department and devoted several weeks to the completion of a device by which by burning the oil in a miner's lamp the relative difference in the quantity of smoke given off could be detected. This appliance, which is quite simple and inexpensive, has been productive of the most satisfactory results. The results are very accurate and since completion it has been relied upon almost exclusively to determine the advisability as to the use of certain oil in the mines of the state.

The first recorded tests with the smoke furnace were made on the seventh of May. All samples were tested under precisely the same conditions and the quantity of smoke given off was compared with that produced by burning lamps containing winter strained and summer white cottonseed oil on each side of it.

Below will be found a table which gives the results of forty-six samples. Those not marked O<sub>1</sub> K. were condemned and if the oil was being offered for sale at the mines its further use was prohibited.

TABLE SHOWING THE NUMBER OF SAMPLES OF OIL TESTED DURING THE YEAR.

Volume of smoke as compared with pure cotton-seed oil.	Excessive.  O. K.  O. K.  Excessive.  O. K.	Excessive.
Specific gravity.	883884343 283323233333333333333333333333	ឌ្ឌន
When shipped.	Marc April Febril Dec. Dec. May	, , , 11 80
Brand,		Miners', Lamp Oil
Name of dealer.	Dillon Mine, No. 2. Pigeon Run Mine. C. T. Poston. Springfield Mine, No. 2. C. T. Clifford C. F. Jamison. Koeh Bros. C. F. Jamison. C. W. Latsham. Card & Prosser. Wellston Store. Superior Store. Superior Store.  Pigeon Run Mine. C. T. Poston.	Hocking Valley Store Wellston Coal Co
Name of compounder.	Atlas Oil Co Standard Oi Atlas Oil Co A. G. Harba Standard Oi A. G. Harba Standard Oi Clarkson & Standard Oi Clarkson & Standard Oi Clarkson & Standard Oi Clarkson & Standard Oil Co Argand Refi	Standard Oil Co
When tested.	May 7.  May 8.  """  """  May 27.  May 27.  May 30.  June 1.  June 1.	<del></del>

TABLE SHOWING THE NUMBER OF SAMPLES OF OIL TESTED DURING THE YEAR.

Volume of smoke as compared with pure cotton- seed oil.	O. K.  Excessive  O. K.  Excessive  " O. K.  Condemned.  " " " " " " " " " " " " " " " " " "
Specific gravity.	May 26. 24. 24. 24. 24. 22.0. 22.0.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0. 22.0.0.0. 22.0.0.0. 22.0.0.0. 22.0.0. 22.0.0. 22.0.0.0. 22.0.0.0. 22.0.0.0. 22.0.0.0. 22.0.0.0.0
<b>М</b> реп shipped.	May 26 June 29 August 19. August 22. Sept. 5
Brand.	Superior, No. 5 mine.       Sample for test.       24         Sample for test.       22.5         Superior, No. 5.       Miners' Lamp Oil       22.5         Sample sent for test.       23.5         "       23.5         "       23.5         "       23.5         "       23.5         "       23.5         "       23.5         "       23.5         "       21.5         No. 2.       August 19.         No. 4       Sept. 5         No. 4       Sept. 5
Name of dealer.	g Co Sample for test
Name of compounder.	A. G. Harbaugh. Buckeye Refining Argand Refining Denlinger Bros. Clarkson & Dalli Standard Oil Co Argand Refining Denlinger Bros. " " Standard Oil Co " " " " " " " " " " " " " " " " " " "
When tested.	June 30

#### MINE MAPS.

As the deposits of mineral wealth throughout the state approach exhaustion, it is of the greatest importance that a full and complete record of their location and their extent should be preserved. This record should consist of a map upon which is accurately delineated the system of mining that was employed and the extreme limits of the excavation.

The yearly production of mineral, and the number of openings at present in the state, make the annual extension, examination and compilation of the mine maps a great undertaking. Again, the provisions of law bearing upon this subject are not applicable in all cases or under all circumstances. Especially is this true of that portion of the law which relates to the filing of maps of abandoned mines. Section 293 provides that the chief inspector shall preserve all surveys, maps and other reports required by law to be filled with him, while section 296 provides that to insure the filing of a map with the department, the chief inspector must give notice to the owner, agent, etc.

It will be seen that this requires that the chief inspector have knowledge as to the intentions of the owner, agent, etc., which knowledge he has no means of obtaining, for if he is not aware at what time a mine is to be abandoned, he will not know when to send the notice.

Section 301 requires that the owner, agent, etc., shall give notice to the chief inspector of mines when a mine is about to be abandoned, but it will be observed that in case of a failure by the owner to comply with this section, it will be but a short time until all opportunity for the department to proceed under that portion of section 296, wherein the chief inspector is given authority to survey and map, will become inoperative, and all opportunity to make a survey and map will be forever destroyed. Section 296 further provides that where the mine has been surveyed, the operator can have ninety days after its abandonment in which to complete the map, which he must file with the recorder of the county in which the mine is located. It is well known that in many instances years elapse from the commencement of drawing pillars looking to abandonment until their completion, and should the survey and map prove to be inaccurate, all opportunity to remedy the error will be lost long before the map is filed with the county recorder.

The above are some of the defects in the law, which make it possible for operators engaged in mining small pockets of coal to exhaust the choice portions of the deposit and abandon the field without the knowledge of the department. It will be conceded that in most instances to foretell the intention of the operator as to what point in the mine or at what time he will abandon any portion and draw it back is impossible. Hence it is that throughout the state there are a large number of mines,

many of which do not come within the law, whose boundaries will never be known. Of these the greater number were openings into veins that lay above drainage, which removes, in a great measure, the danger which would menace the lives of future operators were the mines filled with water.

It will be observed that in many places the penalty for violating the law is inapplicable, and the only remedy left to the department is to enforce the surveying of all mines at regular periods. With this in view during the year of 1889, a notice calling particular attention to the requirements of section 301 was posted at each mine subject to inspection throughout the state. Copies were also mailed to the operators. For the want of sufficient office help, the duty of seeing that the surveys were kept up and that the maps were annually extended was assigned to the district inspectors. Owing to their want of a technical knowledge of the subject of map making, serious omissions in delineation were not detected. Again, the frequent changes in the personnel of the department prevented the inspectors from acquiring such information on the subject of map making as would prevent them from being grossly imposed upon by the operators and their agents, who often gave the most positive assurance that there was in existence a full and complete map of their mines, although not then at hand. It was found that in many instances the mines were not surveyed and mapped up annually, and in a few instances it was discovered that no surveys had ever been made.

In making the demand upon the operators for maps of abandoned mines, it developed that the assigning of this work to the district inspectors had been a great error, and that a thorough and systematic plan of securing maps must be adopted. It was deemed that the initial step would be to request that every mine that came under the law should be surveyed and mapped, and with this in view the following notice was sent to the operators throughout the state:

Office of the Chief Inspector of Mines, Columbus, Ohio, June 1, 1895.

DEAR SIR: There is a growing disposition on the part of the mine operators to neglect to annually map their mines as provided by section 296, Revised Statutes. I desire to call your attention to this matter and request, that, unless your mine or mines have been surveyed and mapped since August 1, 1894, that it or they be mapped completely, not later than August 1, 1895. In order that the department may keep a record of the mine maps in the state, I desire that when this survey and map is completed that you cause a notice of the fact to be forwarded to this office.

Very truly yours,

R. M. HASELTINE, Chief Inspector of Mines.

To this request the greater number of the operators, who were in the habit of having their mines surveyed, complied during the summer and fall. On December 4th, to those who had not replied, a second notice

was given, in which attention was called to penalty for failure to comply with the request. On July 8, of the past year, a third notice was sent to those who were still delinquent. By this time a large number of maps prepared for filing had been received. The responses to these notices developed the fact, that, following the profession there were a large number who lacked a proper conception as to what it was necessary that a map should exhibit in order to be complete or to comply with the intent of the law. It cannot be successfully denied that among those who assume to survey and map mines, there are those who have little or no knowledge of the methods employed in mining, and lack both skill and power of execution to accurately delineate the system employed in conducting a mine. In order to establish uniformity in delineation, the following schedule was prepared, and with it was mailed a request that a map of the mine be made to conform as closely as possible, and that a copy be filed with the department not later than December 15th.

DEPARTMENT OF MINES AND MINING.
(Write name of mine.)
(Write name of County where located.)
STATE OF OHIO.
OFFICE OF
CHIEF INSPECTOR OF MINES,
COLUMBUS, OHIO.
Owing to the evident lack of conception as to what a mine map must exhibit in order to be of value, as evidenced by the very incomplete and unsatisfactory condition in which maps are continually being presented for filing, the department has been compelled to prepare the accompanying schedule, showing what a map must exhibit in order to comply with the law.
READ THE LAW.

R. M. HASELTINE, Chief Inspector of Mines.

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# WHAT A MAP MUST EXHIBIT IN ORDER TO BE COMPLETE AND COMPLY WITH THE LAW.

,,,,	IN MAR SHOW—
	The name of the mine?
	The name of the company?
	The state where located?
	The county where located?
	The township where located?
	The name of mining engineer?
	The date at which surveys were made?
	The top of the map to the north?
	The scale on which the map is drawn?
	That it has been certified to as a true and accurate representation of the mine
	The signature of the mining engineer and the mine boss?
	A north point?
	•
	TOPOGRAPHICALLY.
	The lines of the section or sections?
	The lines of lot or great lots?
	The name of surface owners?
	The lines of railroads?
	The lines of wagon roads?
	The streams or ponds, etc.?
	The valleys which displace the coal?
	The location of principal objects, such as buildings, etc.?

DORS YOUR MAP SHOW-

### **GEOLOGICALLY**

1 110	e kind of openings?
The	e location?
The	e area over which the coal has been exhausted?
The	e line and extent of the entries?
Th	e course and extent of the rooms?
The	e drawing of any pillars?
Th	e boundary lines of the territory?
Th	e limit of the coal deposit or basin?
If a	above drainage, the outcrop?
Th	e location of the fan or furnace?
The	e course by which the air is conducted around the mines?
Th	e location of pump, boiler or other machinery in the mine?
Th	e line and extent of horse backs or faults?
Th	e line and extent of any interruption in the coal basin?
•••••	
	•
	PALL Maps Must be Made on Tracing Linen, Blue Print or Other Suitable for Folding in an Envelope 4 by 10 Inches.
Sig	gned by
Date,	
P. O. A	ddress,
Occupa	ution,

#### READ THE LAW.

SEC. 296. The owner or agent of any mine having an excavation of not less than fifteen thousand cubic yards, shall make, or cause to be made, an accurate map or plan of the working of such mine on a scale of not less than two hundred feet to the inch, showing the area mined or excavated, and the location and connection with such excavation of the mine of the lines of all adjoining lands, and the name or names of each owner or owners, so far as known, marked on each tract and the owner or agent shall annually thereafter make, or cause to be made, an addition to said map, showing the progress and plan of the working of such mine during the previous year up to the date of survey; provided, that said additions shall be made semi-annually whenever the mine inspector deems it necessary and so directs. The map shall be kept at the office of such mine, and open to inspection of the mine inspector, or his assistants, at all reasonable times, and at the request of the inspector the owner or agent shall file a correct copy of such map with said mine inspector at Columbus, and in case of refusal on the part of the owner or agent to make and file such map, the inspector is authorized and required hereby to cause such map or maps to be made in duplicate, at the expense of said owner or agent, the cost of which shall be recoverable against the owner or agent in the name of the state mine inspector; and in case of refusal by said owner or agent to make, or cause such map and the additions thereto to be made, for sixty days after notice by the mine inspector, said agent or owner shall be liable to a fine of five dollars for each and every day until said map is made, which shall be collected in the name of the state of Ohio, at the suit of the state mine inspector, and the amount so recovered shall be paid into the township school fund of the township when collected. And when any mine is exhausted or abandoned, and before the pillars are drawn in any portion of the mine, the owner or agent thereof shall cause to be made a correct map of such mine, showing the area and working of the same to the day of abandoning, or of drawing pillars for the purpose of abandoning, and file such map within ninety days thereafter at the office of the county recorder in the county where such mine is located; said map shall have attached thereto the sworn certificate of the mining engineer making the map, and of the mine boss in charge of the underground workings of said mine; such map shall be properly labeled and filed by the recorder, and be preserved as a part of the records of the land on which such mines are located, and the recorder shall receive for said filing from said owner or agent a fee of fifty cents.

#### Part of Sec. 301:

The owner, agent, or manager of any mine shall also give notice to the chief inspector of mines in any or all of the following cases:

- 1. Where any change occurs in the name of any mine, or in the name of any owner, agent, or manager of any mine, or in the officers of any incorporated company which owns or operates a mine.
- 2. Where any working is commenced for the purpose of opening a new shaft, slope or mine, to which this act applies.
  - 3. Where any mine is abandoned or the working thereof discontinued.
- 4. Where the working of any mine is recommenced after any abandonment or discontinuance for a period exceeding three months.
  - 5. Where the pillars of a mine are about to be removed or robbed.



An examination of the files shows that from the creation of the department to the close of the year 1883, eighty-two maps were placed on file. Their appearance would indicate that they received little or no care, and as a result many of them were ruined from exposure. From 1884 to 1888 twelve maps were placed on file, thus making the total number at the close of the thirteenth year of the department's history, ninety-four. Owing to incomplete delineation and the absence of a suitable discription, together with the changes in ownership and the style in the operating firms it is quite difficult in many instances at this time to locate the mine by the map on file.

The records contain one package which is labeled "Unknown." These maps have all been gone over during the past year and such information as could be secured has been added. The maps made on tracing linen and not already placed in envelopes by my immediate predecessor, were thoroughly enclosed and carefully labeled. It was found that the paper on which the other maps were made had become so brittle as to prevent many of them being unrolled for examination. Of these a record has been made and they have been filed away in tin cases that were made as nearly air-tight as possible. A large number of the maps received during the past year did not conform to the requirements of the department and were returned for completion.

At the close of the year the total number on file amounted to 282, by which it will be seen that since the year of 1888, 188 maps had been received, a few of which fall below the standard owing to the circumstances being such as to prohibit their being perfected. Under the classification by which the mines have heretofore been arranged it is impossible from the records to accurately determine the exact number of mines that come within the provisions of the law, but from the best information at hand at the close of the year, the list should embrace about 861 mines. Of these, maps of 282 are now on file, thus leaving 579 to be collected and filed. It is possible that this number will be somewhat reduced when the list of mines which come within the requirements of the law is full and complete.

The record of the department contains the names of thirty-seven mines which do not come within the requirements of the law, and there is no doubt but that further investigation will increase the number. Efforts have also been made to secure maps of mines that have long since been abandoned, which have so far been rewarded with only partial success. In this it developes that twenty-six of the mines on the list have been drawn back and fallen in without first having been surveyed, thus rendering it impossible to secure a map of them. It is believed that by the close of the coming year, the department will be able to secure a map of each mine now in operation in the state.

The lack of conception as to the necessary features to be portrayed in a mine map as evinced by the variety in design and the finish of those offered for filing with the department, make it necessary to adopt some

system by which a greater degree of uniformity can be secured. With this in view, schedules containing minute details as to what a map should exhibit, were prepared and mailed to all the principle mines in the state. But these only demonstrated that it is impossible to convey the desired information by description. In order to make more evident what it is necessary that a map should exhibit in order to comply with the law, two plates have been prepared. The first one exhibits the manner of delineating the mining of coal in the Hocking Valley. This form of mapping is regarded as the most advanced manner of delineation, and is particularly applicable to mines in which the vein is four and one-half feet and upwards in thickness. The labor of portraying the plan of mining as shown upon the map of the Lost Run Coal Company's mine would be very great in veins four and one-half and under in thickness. It would also make the surveying and mapping much more expensive than in the thicker veins. It is believed that to thus delineate the manner of mining would be an unnecessary hardship upon the operator, and with a view of illustrating a mode or delineating the manner of conducting a mine in the thinner veins, the second map has been inserted. In many of this class of mines the pillars are either removed as soon as the rooms are driven their contemplated distance, or are robbed until too thin to be of value, therefore the necessity is removed of their being shown upon the map. It is believed that this is the most economical form by which the plan of operating this class of mines can be shown as well as the clearest mode of exhibiting the extent to which the excavation has advanced.

These maps were selected from the files on account of their delineation of detail, as well as completeness of the certificates. They are here given as a rule and guide by which it is hoped that the mine maps will be made to closely conform in the future. For the purpose of more clearly exhibiting the subject, the following table has been designated:

Table Designed to Exhibit the Number of Maps that have Been Filed, the Number still Unfiled, those that cannot be Secured, and those Reported as not Coming within the Provisions of the Law, as they occur in each County in the State at the Close of the Year.

		Maps filed.				Number of maps.		
Counties.	Prior to 1884.	Prior to 1888.	Prior to 1897.	Total number.	No. of mines to mapped.	No. to be filed.	Imposible to secure.	Reported No. under the
Athens Belmont Carroll Columbiana Coshocton Gallia Guernsey Harrison Holmes Hocking Jackson Jefferson Lawrence Mahoning Medina Meigs Morgan Morgan Monroe Muskingum Noble Perry Portage Scioto Stark Summit Trumbull Tuscarawas Vintou	10 6 12 2 1 1 1 2 3 4 1 6	2 1 3 2 1 1 1 1	28 8 5 8 8 3 4 12 8 7 4 13 5 8 14 17 4 21 18 4 10	38 14 7 21 3 	99 93 21 57 21 20 4 1 31 73 28 19 32 16 18 5 88 6 2 66 31 17 52 73	61 79 14 36 18 1 14 4 1 15 64 19 12 13 10 4 	3 1 3 1 5 4	3 10 10 10 10 10 10 10 10 10 10 10 10 10
Washington Wayne	1	•••••	1	2	2 11	2 9		
Totals	82	12	188	282	861	579	26	37

#### CONDITION OF LABOR-STRIKES, ETC.

The year has been one in which there has been an unusual amount of contention between all interests engaged in the industry. While there was no general suspension of mining as during the preceding year, there were a greater number of district strikes than have occurred for at least a decade.

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The most stubborn contest of recent years occurred at mine No. 3, owned by the Cherry Valley Iron Co. at Washingtonville, in Columbiana county, where one hundred and sixty miners, who upon being refused in their demand that their coal be weighed before it was screened, ceased work on May 1, 1895, and remained idle until October 1, 1896, a period of seventeen months, when they returned to work having given up the struggle.

About February 15th, one hundred miners employed at the Wainwright mine in Jackson county refused to continue work under the conditions then existing. They remained out until the 18th of June, when they re-entered the mine, the differences having been adjusted.

On March 1st, the miners at Hutson, No. 1. No. 2 and No. 4, and Filer's New Shaft at Palmyra, in Portage county, struck against a reduction of mining of seven and a half cents per ton. At the Hutson No. 4 mine there was an additional controversy in regard to the screens. The miners at Filer's New Shaft remained out until September 1st, when Mr. Filer having withdrawn his demand, the mine resumed operations. At the Hutson mines the miners remained idle until October 1st, when they resumed at the old price. Three hundred and fourteen men were engaged in the contest.

On March 9th, owing to a disagreement in regard to the size of the screens the miners at Salineville came out on a strike. At the Farmer's mine in which but eleven men were employed, satisfactory changes were made and mining was resumed on May 15th. The remaining mines resumed on November 2d. Three hundred and fifty miners were engaged in this struggle.

There was a general strike throughout the mines in the Hocking Valley during the month of October. This grew out of a demand by the operators for a reduction in mining from sixty-one to forty-five cents per ton. This demand was made in order to maintain the nine cents deferential which exists between the Hocking field and the Pittsburg district in which the miners had voluntarily reduced the price of mining to fifty-four cents per ton.

At the principal mines in Tuscarawas county the miners came out on October 12th in resistence to the reduction. This controversy was finally adjusted and they resumed on December 12th.

The same controversy arose in Jackson county, on November 6, 1896, and continued until February 25, 1897. In the above instances the miners were unsuccessful. During the struggle about six hundred miners continued to work in the vicinity of Coalton, also at the Valley and Oak Hill mines of Jackson county.

In Columbiana county the miners at the Carbon Hill No. 2 and No. 3, and the Prospect Hill mine, all at East Palestine, the Pleasant Valley No. 1, at Holly, and the Fairfield mines, Nos. 1 and 2, at New Waterford, ceased work, thus resisting a reduction of sixteen cents per ton. The miners at Carbon Hill Nos. 1 and 2, after remaining out until November

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1st, returned at the operators' terms. The others resumed on the same conditions on November 15th.

At the Saratoga mine No. 1 and the Central Slope at Lisbon, where the same demand was made, the miners did not go out until October 25th. Upon the miners at East Palestine and at New Waterford yielding they gave up the contest and returned to work on November 20th.

At the Quaker Valley mine at Rogers, the strike began on November 1st and continued until December 1st. Four hundred and ninty-one miners were involved in this controversy to whom the result was unfortunate.

In Guernsey county, upon the operators demand that the price of mining be reduced so as to conform to the scale rate which prevails between this and the Pittsburg field the miners threw down their tools upon October 1st. The contention had not ceased when the year closed

There were a number of controversies between the operators and miners of which no record was made owing to the fact that they were minor in character, of short duration and their result was only of local interest.

## REQUESTS FOR THE OPINION OF THE ATTORNEY-GENERAL.

Applications for the assistance of the department by persons engaged in the mining industry were received in a number of instances during the year. The question of authority and the application of the law in several cases necessitated legal advice, for which it became necessary to appeal to the Attorney-General. During the latter part of September a letter written District Inspector Love by Samuel McAdoo, Superintendent of the Calumet Fire Clay Co., in Jefferson county was forwarded to this office. The writer, who operates a mine which required a second opening both for ventilation and as an escapement way for the miners, cannot make one upon his own land without going to a depth which would render it difficult and dangerous for persons to ascend in case of an accident. He asks if under section 297 he can appropriate a right of way through and into a mine which is adjoining. This was submitted to the Attorney-General whose opinion will be found below.

September 26, 1896.

Hon. F. S. MONNETT, Attorney-General, Columbus, Ohio.

Dear Sir: Will you kindly give me your opinion as to whether the provisions embodied in Section 297 of the Revised Statutes secures to an operator the right of making a connection with the mine of another which adjoins his for purposes of ventilation and drainage, in case he has not an opportunity to make a second opening upon his own premises except at an enormous expense and a great delay in conducting his business.

An early reply will greatly oblige,

Yours truly,

R. M. HASELTINE, Chief Inspector of Mines.

Office of Attorney-General, State of Ohio.

COLUMBUS, OHIO, November 18, 1896, R. M. HASELTINE, Chief Inspector of Mines.

DRAR SIR:—In your letter of some days ago you put the question whether the provisions of Section 297. R. S., secures to an operator the right of making a connection with the mine of another which adjoins his, for the purpose of ventilation and drainage, in case he has not an opportunity to make a second opening upon his own premises, except at an enormous expense and a great delay in conducting his business.

Section 297 authorizes a person owning a mine which has but one shaft, and who does not own suitable surface ground for another opening, to appropriate, in the proper manner, any land adjoining for the purpose of providing a second shaft or outlet. Suitable surface ground, is ground so situated, that a shaft being sunk upon it, will successfully accomplish the purpose for which it is intended. If this can be done, then such owner has no right to appropriate the land of another for such purpose, although the expense of sinking it upon his own land will be very great. But this is a question of facts to be determined by Court and Jury in appropriate proceedings.

Very respectfully,

F. S. MONNETT, Attorney-General.

On November 14th, a committee which had been appointed for the purpose, waited upon district inspector R. H. Miller and asked that the department aid in the extinguishing of a mine fire which had broken out through the walls behind which it had been confined for several years and was then threatening not only the destruction of the mine and adjacent property, but the homes of the people living at Old Straitsville. Mr. Miller, after examining the mine presented the matter to the writer. There was no precedent on record where the department had received an appeal to save property of people not the owners of the mines. Again, the lawful authority of the department to assume the work was a matter of great doubt. This question was submitted to the Attorney General as set forth in the following letter, the reply to which will be found attached.

OFFICE OF CHIEF INSPECTOR OF MINES,

STATE OF OHIO,

COLUMBUS, OHIO, November 17, 1896.

Hon. F. S. Monnett, Attorney-General, Columbus, Ohio.

DHAR SIR: In the town of Old Straitsville in Perry county, of this state, there is a mine known as No. 11—old number, now No. 139, operated by the Great Vein Coal Co. of that place. The fee embracing the coal and all the surface except that portion previously sold for lots, is vested in Henry Elliot of the Zanesville Paper Co. in Muskingum county.

During the great strike of 1884-1885 a portion of the coal in this mine was discovered to be on fire. This had been enclosed and until recently has remained within the enclosure. It has now broken out and is burning the coal owned by the aforesaid Henry Elliot and operated under lease by the Great Vein Coal Co. and if allowed to continue will cause the surface to fall, thus destroying the homes of the

people who have purchased lots previously and erected houses thereon. In addition, it is believed that it will eventually extend into the coal mines of adjacent owners, thus destroying a large amount of valuable coal in that portion of the state. It is said that the owner, Mr. Henry Elliot, refuses to take the necessary steps and expend the money necessary to confine the fire, and thus protect the property above described.

I desire to ask your opinion as to what duty, if any, devolves upon the department of mines and mining, and what power, if any, it has to enforce the said Henry Elliot to prevent this fire upon his premises and thus avoid destroying the property of others.

An early reply will greatly oblige,

Yours truly,

R. M. HASELTINE, Chief Inspector of Mines.

OFFICE OF THE ATTORNEY-GENERAL.

STATE OF OHIO.

COLUMBUS, OHIO, November 19, 1896.

R. M. HASELTINE, Chief Inspector of Mines, Columbus, Ohio.

DEAR SIR: This department has the honor to receive a communication from you, dated November 17, 1896, asking for an official opinion concerning the state of facts set forth in your official communication in reference to mine No. 139, lying under the town of Old Straitsville, Perry county.

You call attention to the fact that said mine is now on fire, and has been for a long time; that if said fire is allowed to continue it will cause the surface to fall, and destroy the homes of the people who have purchased lots and erected houses thereon; that it will extend i to the coal mines of the adjacent owners, and thus destroy a large amount of valuable coal in that portion of the state.

You further state that Mr. Henry Elliot refuses to take the necessary steps to either confine the fire or extinguish it. You ask for some additional construction of the statute, and instruction as to your power in the premises. Under section 292 of the statutes, the duty of chief inspector and the duties of the district inspectors are very broad and discretionary, and basing my opinion upon the facts stated in your communication, if upon examination of said mine you find the facts to exist practically as you state in your communication, and make a record thereof as required by the act, and if you find the provisions of that chapter violated by the owner of any mine, so that life and health of any persons are threatened, it is your duty to immediately notify any owner, agent or lessee in charge, of any neglect or violation, and unless the same is within a reasonable time rectified and the provisions of the chapter complied with, you should institute prosecution under the provisions of section 6871, R. S.

The law further enjoins upon you to exercise your sound discretion in the enforcement of the provisions of the act, which would imply that you should thoroughly investigate, the cause of the threatened danger, and take into consideration the possibility of extinguishing the fire, and regulate the time in accordance therewith.

Dictated.

Respectfully submitted,

(Signed.) F. S. MONNETT,

Attorney-General.

Upon the advice of your Excellency, Mr. Henry Elliot was next visited, and he authorized the writer to expend \$125.00, the amount that Mr. Miller estimated it would require to again confine the fire. In com-

pany with District Inspector Miller the writer at once made a thorough examination of the mine, when it was found that during the interval between Mr. Miller's first inspection and the present the fire had spread with great rapidity toward the interior of the mine. The entry ribs and room pillars under the southern part of the town, where the surface was from eighty to 100 feet in thickness and the coal ranged from nine to twelve feet in height, were burning fiercely. A large volume of smoke coming from an air shaft was pouring into two houses nearby in which there were children sick with scarlet fever. The entry ribs were ablaze in close proximity with a large quantity of timber, which if once ignited would greatly lessen the possibility of confining the fire. A plan was outlined whereby the fire was to be confined, and an estimate of the amount of material required and labor necessary was made. The situation appeared so serious that I was prompted to send the following message:

NEW STRAITSVILLE, OHIO, November 23, 1896.

HENRY ELLIOT, Care of Elliot Paper Co., Zanesville, Ohio.

Situation serious. What ever done must be at once. Will cost four hundred. Iron to that amount in mine. Will you pay it? Answer at once.

The reply came in the evening and read;

ZANESVILLE, OHIO, November 23, 1896.

R. M. HASELTINE, New Straitsville, Ohio.

Will loan the company two hundred dollars. Is all we have.

H. ELLIOT.

After the exchange of several messages in which the gravity of the situation was explained more in detail, the writer went to Zanesville, arriving on the morning of the 25th, where he had an interview with Mr. Elliot who then gave his check for \$500.00 to be used in subduing the Inspector Miller, who was on the ground, was wired to have the work go forward under his directions. The time of confining the fire was somewhat prolonged on account of two strikes among the men who had agreed to perform the labor for a stipulated amount. These suspensions were participated in by the committee who waited upon Mr. Miller pleading for relief and by those whose homes were in peril, and they had all signed a petition to the attorney-general in which they asked that he assist them to save their property. By December 9th the fire was securely encased and when the year closed the walls were cool and there was no apparent signs of future trouble. The entire expense amounted to \$330.13. It is said that in 1884, when the fire first occurred, that \$11,000 was expended in confining it and that upon a subsequent date when it broke out \$5,000 was expended before it was under control. By a comparison with the experience of others the result was satisfactory.

In the efforts of the department to secure a map of each mine in the state many letters were written the owners. The following was to Mr. Clarence Stephens, of New York:

COLUMBUS, OHIO, NOV. 3, 1896.

MR. CLARENCE STEPHENS, 41 Dey St., New York.

DEAR SIR: The Department is in frequent receipt of inquiries as to the mode of conducting mines throughout the state, and for maps which exhibit the extent to which mining has progressed in certain mines. The danger to life encountered by miners in approaching abandoned mines that have been allowed to fill with water and foul gases, and other reasons have induced me to undertake the task of securing a map of each and every mine in the state that come within the provisions of Sec. 296 of the Revised Statutes.

Among the maps that have been received to be placed on file in this office, many serious omissions have been found. The lack of uniformity in their construction, and a general want of information embodied in them, has compelled me to prepare the accompanying schedule, which sets forth what a map must contain in order to comply with the law. If your mine has an excavation of 15,000 cu. yds., it comes within the provisions of the law, and I desire that you have a map made of it as directed in the schedule, a copy of which you will have made on either blue-print paper or tracing linen, and mailed to me for filing in the Department by December 31, 1896.

I am very truly yours,

R. M. HASELTINE, Chief Inspector of Mines.

#### THE MARIETTA RUN COAL AND COKE CO.

NEW YORK, December 21, 1896.

MR. R. M. HASELTINE, Chief Inspector of Mines, Columbus, Ohio

DEAR SIR: Your notice concerning a map to be made of our property was received soon after I was laid up with a very dangerous attack of blood poisoning and fever accompanying same.

Was over to the city today (I live in Brooklyn), and looked over the maps in the office. I find one representing the whole property, showing streams and courses, valleys, hills, location of entry and workings on a small scale, ovens and houses, all with respect to the surrounding and adjoining country land.

Map No. 2 is the mine and improvements by itself. The entry has been draughted about two-fifths through the ridge with the first possible fifty or seventy-five rooms worked. But little of this has been given up. There was too much sulphur, I understand, in that coal and hence was allowed to stand. I don't know how soon I can get that map completed, but from my experience in mining in the west should think a surveyor would want about three months' time. Then, where can I get a surveyor to give all his time to this work is another question, and lastly, where am I to get the money from to pay for this work when it is done? As this property is under a receivership, don't you think I will have to ask the court for authority to have this work done before going to this expense where the money is coming from to pay the bill.

Kindly give me your opinion soon.

Yours truly,

CLARENCE STEPHENS, Receiver.

MIDDLEPORT, OHIO, December 24, 1896.

To R. M. HASELTINE, Esq.:

DEAR SIR: You will please find enclosed a description of a right of way bought by Hannah M. King, from Don C. Smith. We are driving one six foot entry for conveying coal, and one six foot entry for air, and they want to stop us from driving

the air-way. Please notify me at once what sufficience of air-way we need, and send Mr. Beattie to our mines in order that we will be on the right side of the state law. Our map will be at your office next week.

T. H. MASON, Mine Boss. Jos. E. MASON & Bro.

#### COPY OF RIGHT OF WAY.

County of Meigs, State of Ohio. The receipt whereof is hereby acknowledged, do hereby remise and to the said Hannah M. King, her heirs, assigns forever, the following real estate, situated in the county of Meigs, in state of Ohio, is the township of Salisbury and boundaries and described as follows:

The right of way for the purpose of a coal entry for the transferring of coal through the following described premises, beginning about eighteen rods east of the south-east corner of Clifford and Ethel Stevers 1.15 acre lot in the north half of one hundred acre lot No. 315, Town 1, Range 13, Ohio Company's purchase. Said point of by beginning is on the county line of said 100 acre lot, No. 315, and running south-easterly direct under the ridge about 510 feet to land owned by Ellen S. Cline. (Said entry or right of way to be six feet wide with the right to make such ventilation as the state mine inspector may direct without injury to the surface.)

Please notice the last clause which is marked () and give me answer at once, as Mrs. Don Smith is going to file injunction for driving air-way with the main entry, and if you deem it best to send Mr. Beattie to our mine, notify me what steps to take at once.

T. H. MASON.

BLATCHFORD, OHIO, December 31, 1896.

R. M. HASELTINE, Esq., Chief Inspector of Mines, Columbus, Ohio:

DEAR SIR: Our company have had a man in their employ here for some time who has been subject to something like epileptic fits, but he was stopped from working some time ago. The man has a family and needs work and does not seem accustomed to do anything but load coal after the machines. Now, I would like to do something for him, but I am afraid some spell might come upon him and be the cause of him losing his life and then our company be held responsible for it.

Now, I would like to ask you if there is not some provision made in the mining department for cases of this kind—some form of release, for instance, that could be signed by himself and wife (which he is willing to do), which would be recognized by your department and relieve the company from responsibility.

Yours, etc.,

JAS. R. BIRKBECK.

Office of Chief Inspector of Mines,

STATE OF OHIO,

COLUMBUS, OHIO, January 14, 1897.

Hon. F. S. Monnett, City:

DEAR SIR: Enclosed you will find three letters, one from J. R. Birkbeck at Blatchford, one from T. E. Mason at Middleport, and the other from Clarence

Stephens of New York city, all of which ask for opinions that come within your province, and are not under my authority. Will you kindly look over them at your earliest convenience and give your opinion of the several matters therein contained.

By so doing you will greatly oblige,

Yours truly,

R. M. HASELTINE, Chief Inspector of Mines.

Office of the Attorney-General,

STATE OF OHIO,

COLUMBUS, January 15, 1897.

R. M. HASELTINE, Columbus, Ohio:

DEAR SIR: In reference to the inquiries made by the Marietta Run Coal & Coke Company, I think the receiver should apply to the court having charge of the trust, and get authority to do the work and receive the pay out of the estate.

In reference to the inquiries of Mason, as I understand it, they are purely matters for the local court. There being so much that is a question of fact rather than of law, the courts should look after it.

I enclose herewith the letters sent me.

Dictated.

Yours very truly,

F. S. MONNETT, Attorney-General.

P. S. In the matter inquired of by James R. Birkbeck, the question of the deficiency of a contract to relieve themselves of liability for negligence, under the circumstances, should be submitted to the attorney for their company to draw up, which, so far as your department is concerned we could not object.

F. S. M.

## REPORT OF THE FIRE CLAY INDUSTRY DURING THE YEAR 1896.

In the ordinary acceptance of the term, "Fire-Clay" includes all clay except that which is used in the manufacture of common red building brick and ordinary tile, and in reading this article, this should be kept in mind.

There has been no change in the list of fire clay producing counties, the seventeen reporting being the same as last year. As to the average number of weeks worked the number remains the same as last year, viz.: thirty-two. Nine counties, of which Trumbull and Lawrence are the most notable, show gains; six counties, of which Holmes is the most conspicuous, show losses, and two counties remain the same as last year.

The number of men employed is found to be 601, a loss of 227 as compared with 1895, but an increase of 50 as compared with 1894. Seven counties show small gains aggregating thirty-six, while ten counties show losses amounting to 263. The only county which shows a remarkable loss is Muskingum, which appears on the table with 134.

There is also a loss in the number of hands employed in the manufacture, 4,156 having been reported in 1895, while the returns show that

only 3,139 received employment in 1896. Stark, Tuscarawas and Jefferson counties in the order named report the greatest number. Four counties show gains amounting to 120, while thirteen counties show losses aggregating 1,137, thus making a net loss of 1,017. Muskingum and Jefferson counties sustained the greatest losses.

The year's production for 1896 amounts to 827,540 tons, as against 844,832 tons in 1895, 942,913 tons in 1894, or 1,032,348 tons in 1898. Jefferson and Stark counties are the largest producers. Of the seventeen counties, five report gains aggregating 52,054 tons, and twelve show a total loss of 69,346 tons. It will thus be seen that the net loss was 17,292 tons. Stark county shows the largest gain, while Hocking and Trumbull counties suffered the greatest losses.

But six counties report as purchasing fire clay for manufacturing wares, as against ten in the previous year, Tuscarawas, Lawrence, Scioto and Holmes having dropped from the list. The number of tons purchased was ascertained to be 35,931, which is a loss of 25,951 as compared with last year, but is a gain of 26,123 as compared with 1894. Perry county is the largest purchaser.

An examination of the second table reveals the fact that from 1884 to 1892 there was a gradual increase in production, but from the latter date there has been a steady decline. The loss during the last few years is probably due to the general business depression.

Table Showing the Fire Clay Production of the State from January 1, 1884, to December 31, 1896.

Years.	Output tons.	Gain.	Loss.
1884	103,736 266,709 366,476 471,794 574,129 833,159 1,087,560 1,253,110 1,032,348 942,913	112,953 99,767 105,313 102,335 259,080 254,401 165,550	14,452 1 220,762 89,435 97,081

### EXECUTIVE DOCUMENTS.

TABLE SHOWING THE FIRE CLAY OUTPUT OF THE STATE DURING THE YEAR OF 1896 AS COMPARED WITH THAT OF 1895.

	BARCUI	IVE DOCUMENTS.
ut.	Loss in tons mined.	4,917 2,488 2,488 2,488 3,786 3,786 3,786 1,589 1,589 1,589
Output.	Gain in tons mined.	8, 3800 6, 0880 10, 480 10, 480
	Lossin hands employed in the manufacture.	2 2 8 8 8 8 8 1 8 1 1 1 1 1 1 1 1 1 1 1
yes.	Geinin pands employed in the manufacture.	5.5   1   1   1   1   1   1   1   1   1
Employes	Loss in miners.	2 8 0 0 1 18 8 0 0 2 2 8
	Gain in miners.	-4   0   0   8   4   8
	No. tons purchased for manufacturing wates	2,5776 18,776 18,776 18,776 18,776 18,776 18,776 18,776 18,776
1806.	No. tons mined.	71.417 2.1.600 2.1.
	No. hands employed in the manufature.	245 70 1151 266 267 267 267 27 285 285 285 422 811 418 418
	Ио. теп етріоуеd.	83820335212 285408 B
	Ио. меекз могкеd.	8 祝农田田田
	No. tons purchased for manufacturing wares.	007.9 88.007.0 10.07.1 10.07.1 10.07.1 10.07.1 10.07.1 10.07.1 10.07.1 10.07.1 10.07.1
1896.	No. of tons mined.	88 88 4000 88 4000 88 4000 88 4000 88 4000 88 447 1107 440 1107 410 88 108 1108 1108 1108 1108 1108 110
	No. hands engaged in the manufacture.	251 202 203 214 282 77 77 71 1171 1171 1188 454 456 454 456
	No. men employed.	にっちた-第の器器の3 彩金にある。
	Ио. weeks worked	第 第 第 第 第 第 第 第 8 8 8 8 8 8 8 8 8 8 8 8
	Countles.	A thens. Carroll. Car

## PRODUCTION OF IRON ORE IN THE STATE DURING THE YEAR.

The year opened in the general ore markets with very little buying, but with a feeling of confidence that the year would be a prosperous one. All during the early months came reports of endeavors to raise the prices of ore, which were the lowest in years, by reducing the output, and in July nearly all the furnaces west of the Alleghanies were idle.

During the summer months there was scarcely any buying, every one seemed to be waiting for the result of the election which should determine whether protection and sound money would be embodied in the coming revenue and fiscal legislation of the Government.

During September the sales of some firms were as large as the whole of the summer months combined. This was probably due to the fact that the silver sentiment had died out to a large extent, and purchasers bought in the belief that prices would rise after election. As a result of the election there was a business of thousands of tons which had formerly existed only as conditional orders on paper, and as a consequence prices on all kinds of ore rose. The activity was of short duration, however, and the year closed with weakness in every department, and prices for most products the lowest of the year.

From the first table which accompanies this article it is seen that the total production of iron ore in Ohio for the year amounted to 70,765 tons, a reduction of 23,358 tons as compared with the preceding year, but an increase of 12,722 tons as compared with 1894. It will be seen also that the output was all of the Hematite variety, the counties of Mahoning and Tuscarawas, which formerly produced the much prized Blackband ore, having reported for the last time in 1893. Of the list of twelve ore producing counties which reported in 1887, but three have remained since 1898, viz.: Jackson, Lawrence and Mahoning. Jackson, which reported the largest production during the preceding year has sustained a loss of 20,598 tons or nearly 48 per cent., and to this county can be attributed nearly the entire loss in the state, as Lawrence made but a small loss, while Scioto county returns a small gain.

By an inspection of the second table it is found that there has been an almost constant decrease in production from 1887, when the maximum of which the department has a record was reached, to the present time. This decrease is due to the fact that there has arisen a demand for other varieties of ore than we produce, and also to the development of the rich beds of iron ore in the north-west by means of improved machinery which makes it possible to send ore to the Lake Ports at a much less cost than our comparatively scanty deposits of lean ore can be mined.



TABLE SHOWING THE	PRODUCTION OF	IRON ORE BY	COUNTIES DURING THE
YEARS 1895 AND	D 1896 AND THE (	GAIN AND LOSS	IN EACH COUNTY.

Counties.	Hematite 1895.	Hematite 1896.	Gain.	Loss.
Jackson	43,253 29,771	22,655 27,011		20, <b>5</b> 98 2,760
Mahoning	20,027	21,099	1,072	
Totals	93,051	70,765	1,072	23,358

TABLE SHOWING THE IRON ORE PRODUCTION OF THE STATE FROM 1884 TO 1896 INCLUSIVE.

	В	Black-band.			Hematite.			
Years.	Output. Tons.	Loss,	Gain.	Outputs	Loss.	Gain.	Totals.	
1884							276,286	
1885	70.931			188,646			259,581	
1886	83,947		13,012	260,537		71.891	344,484	
1887	87,965		4,018	289,500		28,963	377,465	
1888	82,054	5,911		171,298	118,202		253,352	
1889	70,398	11,656		182.011	,	10.713	252,409	
1890	41,848	28,550		127,240	54,771		169,088	
1891	15,540	26,308		52,444	74,796		67,984	
1892	8,680	6,860		81,042		28,598	89,722	
1893	3,837	4,843	l	64,423	16,619		68,260	
1894		3,837		58,043	6,380	35,008	58,043	
1895		I		93,051			93,051	
1896		j	ļ	70,765	22,286		70,765	
Totals	465,204	87,965	17,030	1,639,000	175,173	293,054	2,380,490	

#### THE YEAR'S PRODUCTION OF LIMESTONE.

The limestone statistics for the year of 1896 have been arranged according to the same method that has prevailed for several years past. Three tables have been prepared which are designed to show the production in each of the limestone producing counties of the state, under each of the nine classifications into which the product is prepared to meet the demands of the market. It will be observed that thirty-nine counties appear with a production this year, as against thirty-eight last year, Union and Paulding having dropped from the list, while Mercer, Pickaway and Pike have been added.

The first table is arranged to exhibit the number of weeks worked, the number of men employed and the production under each classification in the several counties; also, the average number of weeks worked and the total production under each classification in the state. The second table exhibits the gain and loss in the various classifications as compared with the preceding year. The third table shows the output of the state covering a period of eleven years; also the gain and loss under each classification as compared with 1895.

Owing to the diversity of forms in which limestone is produced, it is impossible to state which county leads in its production, but as the most prominent may be mentioned, Erie, Marion, Miami and Ottawa.

With regard to the number of weeks worked it is found that the average throughout the state was twenty-four, a gain of one as compared with the previous year. Under this heading nineteen counties show increases, eighteen show losses and four remain as last year.

The number of men employed is found to be 3,186, a decrease of 643 as compared with the preceding year, but an increase over 1893 and 1894. Hamilton county shows the greatest loss which appears on the table as 362 or 56 per cent. of the entire loss of the state.

Under the heading "burned for lime" it will be observed that the total number of tons produced is given as 397,162. Thirteen counties show a gain of 38,165 tons, while seventeen counties show a loss, of 811,991 tons, making a total loss of 778,826 tons. This is the greatest loss of which the department has a record. Marion county is responsible for nearly the entire decrease, as she appears with 660,692 tons less than she reported last year.

An examination of the column under "burned for fluxing" reveals the total production to have been 623,544 tons, a gain of 193,912 tons. This is the largest output that has ever occurred in the state, with the exception of the year 1888. The gain this year is due almost entirely to Erie county, which appears with a production of 435,740 tons, a gain of 327,275 tons.

The production of dimension stone is the least that has been reported in the last ten years, the returns showing that but 260,289 cubic feet were produced. This is a decrease of 240,359 cubic feet as compared with the preceding year. Miami and Seneca are the only counties which show any considerable gains, while Montgomery, Preble and Allen show large losses.

Under the heading "ordinary building stone," it will be noticed that the output for the year is given as 215,900 cubic yards, a decrease of 38,000 cubic yards as compared with the year 1895, but an increase of 34,178 cubic yards as compared with 1894. Under this classification Hamilton, Franklin, Miami and Erie, in the order named, are the largest producers. Seventeen counties show gains aggregating 23,580 cubic yards, while the same number of counties show losses amounting to 61,580 cubic yards. Hamilton and Franklin together contributing nearly 41 per cent. to the latter.

By consulting that part of the tables devoted to limestone for "pier and protection purposes," it is seen that the production was 29,114 cubic yards, the smallest that has occured in the last decade, with the exception of the year 1894. Sixteen counties return small gains, while eight counties show large losses, the resultant being a loss of 19,561 cubic yards. Erie and Miami counties are the largest producers.

Under "flagging," seventeen counties report a total production of 137,579 square feet. This is the least production that has occured in any year of which the department has a record and is a falling off of 436,055 square feet or more than 76 per cent. as compared with last year. Delaware, which last year was the largest producer under this classification (reporting 55 per cent. of the entire output of the state), this year returns but 300 square feet, a loss of 314,000 square feet; Allen county, which returns 83,600 square feet or nearly 60 per cent. of the entire production of the state, is the largest producer.

Under "paving" it is observed that the production is 163,373 square teet. This is the smallest output since 1886. Seven counties show ains aggregating 101,603 square feet, while ten counties show losses amounting to 579,066 square feet, thus making a net loss of 477,463 square feet. Hancock and Seneca show immense losses, returning together more than 85 per cent. of the entire losses in the state.

From that part of the tables devoted to "curbing," it is observed that the production this year is less than half of what it was last year, having fallen from 152,873 to 71,236 lineal feet, the lowest it has reached in many years. Twelve counties report a production under this classification, the only ones of prominence being Miami and Montgomery, who together show a production of 63 per cent. of the entire output of the state. The loss is due almost entirely to the falling off in Preble county.

Under "ballast and macadam," twenty-eight counties report a production of 553,329 cubic yards, the most important producers being Franklin, Marion, Allen and Harden. Fifteen counties, of which Franklin is the most prominent, show gains aggregating 73,247 cubic yards, while the same number of counties, of which the most important are Highland, Hancock and Harden, reported losses amounting to 170,-185 cubic yards. From this it will be seen that the net loss was 96,888 cubic yards. There is considerable change as compared with last year in the list of counties reporting under this classification, Butler, Holmes and Mercer having been added, while Clermont and Muskingum have been dropped.

Ouble yards of ballast and managem.	5,000 13,000 13,000 13,000 13,000 13,000 13,000 10,	13,800
Lines leet of curbing.	800 1,400 1,000 1,000 1,000 1,000 1,000 1,000	
Square teet of paving.		12,700
Square feet of flagging.	88 86 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Cubic yards for piers and pro- tection purposes.	1.300 1.300 1.300 1.766 1.776 2.000 2.566 5.000	8
Cubic yards of ordinary building stone.	25.02 2.05.02 2.05.02 2.05.03 2.05.	6,281
Ouble feet of dimension stone.	2,500 17,600 17,600 17,600 2,500 8,075 4,300 60,835 60,835 60,835 60,835 60,835 60,835	36,123
No. of tonsol 2,000 pounds each burned for fluxing.	16,834 16,834 16,834 1,201 1,201 1,201 3,835 8,846 3,846 8,8	
No. of tons of \$,000 pounds each burned for time.	25, 456 26, 747 27, 747 28, 28, 28, 28, 28, 28, 28, 28, 28, 28,	2,898
No. of men employed.	+8-1921-24-22223288-1+2523228-0554-0	15
А verage No. of weeks worked.	5528=355888328283358355885	82
Countles.	Adams Allen Allen Clark Clark Clark Crawford Crawford Crawford Crawford Crawford Crawford Crawford Crawford Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin Hardin	Preble

PRODUCTION OF LIMESTONE IN OHIO DURING 1896-Concluded.

Dus tasiled to stray oldio macadam	7,700 8,885 81,000 86,000 14,900 16,000 16,000
Lanesi feet of curbing.	
Square feet of paving.	27,000
Square feet of flagging.	1,248 1,248 1,248
Cubic yards for piers and pro- tection purposes.	891 901 1117 1117
Cubic yards of ordinary build- ing stone.	2.177 4.588 7.406 7.406 1.804 6.611 6.611
Cubio feet of dimension stone.	21,500 12,800 280,289
No.ot tons of 2,000 pounds each burned for fluxing.	£4,289
No. of tons of \$ 000 pounds each burned for time.	105 7,005 5,000 1,200 1,200 1,200 1,405 1,200 1,200 1,200 1,200 1,200
No. of men employed.	7.58.201 × 0.5 × 0
Average No. of weeks worked.	2822288
Counties.	Putnam Sandusky. Schreta Shelby. Strict. Van Wert. Wood. Wyandot.

upon the assumption that the blocks were six inches deep, and one cubic foot or yard would make two, surface measure. Where flagging has been returned by the cubic measure it has been reckoned that the flags were four inches in thickness, and that one cubic yard or foot would make three, square measure. and 210 pounds of lime to the harred. Where block or cube stone for paving has been returned by the cord or cubic yard, it has been reduced to square feet Nore-In reducing the various returns to a common standard, a cord was reckoned to weigh 11,000 pounds, and to contain 128 cubic feet. Where the amount of lime burned was returned, instead of the amount of stone, it was converted into tons of stone on the basis of 140 pounds of stone to the bushel of lime (701bg.)

TABLE SHOWING THE COMPARATIVE GAIN AND LOSS IN THE VARIOUS CLASSIFICATIONS OF LIMESTONE, THE PRO-DUCTION OF 1896 BEING COMPARED WITH THAT OF 1895.

mabsadan.	Loss.		5,27
to spray oiduO	Galn.	6,188 120 120 120 120 120 120 120 120 120 120	Π
carbing.	Loss.	009 (008 th	4,500
Lineal feet of	Gain.	4,175 4,176 1,436 300 300	
paving.	Loss.	17 10 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Square feet of	Gain.	84 8002 84 84 8002 84 84 84 84 84 84 84 84 84 84 84 84 84	23,250
gessins.	Loss.		
Square feet of	Gain.	69,450 2008 2008 2009 2008 2009 2009 2009 200	
process.	Loss.	18.701 18.701 1.408 312 1.083	
tot abray oldu orq bna arəiq	Galn.	83 83	- <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del> <del>-</del>
dinary building stone.	.sso.I		.858
Cubic yards of or-	Gafn.	3, 188 1, 288 1, 288 3, 685 5, 529 2, 188	
Cublo feet of di- mension stone.	Loss.	3,500 3,500 11,600 11,600 11,600 11,600 11,600	12,500
- No topy obtain	Geln. (1940)	1. 8g	
each burned for fluxing.	.880.1	5775 5786,9 50,9886,1118	
Tons of \$000 pounds	Gøln.	2,2011 2,2011 801 2,233 2,233	
each burned for lime.	Loss.	261 9,026 11,007 461 1,480 1,480 7,466 5,568	3
abanoq 000\$ to anoT	Gain.	967 80 80 80 1,476 106 106 175 837 837	
Number of men employed.	Losa	25	: R 
aom to reducin	Gain.	98 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Иитрег от weeks worked.	Loss.	1-4 344 N 8000 0 NB NB D	_
siloom to nodmith	Galn.		9
Counties.		Adams. Alam Alam Alam Alam Alam Clermont Clermont Clerwont Clerwel Clinton Darkware Eric Frie Frie Hamilton Handin Hardin	Putnam



TABLE: SHOWING THE COMPARATIVE GAIN AND LOSS IN THE VARIOUS CLASSIFICATIONS OF LIMESTONE, THE PRODUCTION OF 1896 BEING COMPARED WITH THAT OF 1895.—Concluded.

maceem.	.sso.I	24,868 21,868 8,056 1,70136
Cubic yards of bailest and	Galn.	836 11,080
I lineal feet of curbing.	Loss.	800 80,087
	Gain.	00988
Square feet of paving.	Loss	5,400 5,400 679086
	Gain.	101608
gekkpe.	Loss.	5000 500 500 500 500 500 500 500
to teet or auga	Galn.	188.
fection pur- poses.	.seo.I	72. 20.86,80 19.56,1
rot stray olduo	Gain.	84.0
.ənota	.880.I	200 200 61,580
Cubic yards of or diding	Gain.	28,580
mension stone.	Loss.	306829
Cubic feet of di-	Овіл.	7,572
fluxing.	Loss.	29,000
abnuoq 0003 to anoT	Gain.	21.0801 927/238
пше.	Loss.	5,108 56,340 316 1,505 1,506 178826
Rons of 2000 pounds	Gain.	8,16
employed.	Poss	20 20 Et 3
Number of men	Gain.	37 37 9
могкед.	Loss.	w4 & X
Number of weeks	Gain.	-38 00- 8 2
Counties		Sandusky Seneca Seneca Seleby Stark Scholo Union Wood Wyandot Totals Argregate gain or loss

TABLE SHOWING THE COMPARATIVE PRODUCTION OF LIMESTONE IN OHIO FROM 1886 TO 1896, INCLUSIVE.

Cubic yards of bal- last and macadam	186.88 446.018 53.5.770 53.5.770 724.194 734.744 650.8174 650.8174 650.8174 650.8174 650.8174 650.8174 650.8174 650.8174 650.8174 650.8174 650.8174
Lineal teet of curb- ing.	200 200 200 200 200 200 200 200 200 200
Squere feet of paying.	154, 636 289, 156 289, 156 586, 301 4, 645, 208 2, 683, 206 383, 206 640, 889 1168, 373 147, 463
Square feet of flagging.	187, 900 860, 854 188, 901 171, 865 171, 865 171, 873 171, 873 171, 873 187
Cubic yards for piers and protection purposes.	88 88 88 88 88 88 88 88 88 88 88 88 88
Cubic yards of ordinary building stone.	286, 281 271, 287 271, 287 281, 687 281, 687 281, 782 283, 800 283
Cubic feet of dimen- sion stone.	5.66 647 1,795,088 1,795,088 1,795,098 1,657,197 1,657,1
Number tons of 2,000 poundseach burned for fluxing.	288 080 478 674 285,286 287,282 287,284 108,376 280,478 429,673 429,673 429,673 429,673 429,673 429,673
Number tons of \$ 000 pounds each burned for lime.	517, 270 619, 027 609, 027 609, 827 744, 946 831, 049 386, 680 386, 680 386, 680 387, 175, 988 897, 175, 988
Number of men employed,	25 25 25 25 25 25 25 25 25 25 25 25 25 2
	មន្តមន្ទមន្ទមន្ទ
Ауегаge питрег жеекя worked.	

# EXECUTIVE DOCUMENTS.

#### CASUALTIES DURING THE YEAR.

For the past three and one half years the mining industry has suffered intensely from the industrial depression which has caused a general paralysis to every industry in the country. It is believed that during the year just closed the depression in the coal trade had exceeded any other in its severity. Suspensions in mining operations have been more frequent and have continued for longer periods of time than those which occurred during the preceding years of diminution in prosperity. Attention has been called in former reports to the accumulation of perils to which persons employed in the mines are exposed during these periods of intense depression. In order that they may be more clearly shown, I again briefly review them in this article. In order to attain the highest degree of safety in mining, it is essential that the mines should run with uniform regularity. It also is equally important that only experienced men be placed in positions that requires skill and discretion while they are in operation Uninterrupted vigilance must be prosecuted in the examination of the machinery as well as in preventing obstructions from accumulating in air ways, entries and rooms, thus interrupting the flow of air. It is also necessary that a close watch be kept upon the false work which has been erected for the purpose of directing the course of the air as well as for the protection of the miner. The furnace must not be allowed to become cold, or the fan permitted to remain idle. times of business adversity operators become more or less remiss in these requirements, especially is this true when mining operations become unprofitable and the owners are forced to operate their plants in order to retain their organization intact, while they wait for the return of a more profitable period. It frequently occurs that to run the plant at a loss is cheaper than to suspend operations altogether, and in some instances owners are forced to operate in order to comply with some obligations. Thus it will be seen that under these conditions operators are loath to make any improvements, although they are aware that a diversity of perils are constantly accumulating. The miner in his eagerness to make the most of each opportunity that presents itself, rushes ahead, regardless of the dangers that threaten him on every hand. This is especially true of the inexperienced foreigners, who in large numbers find employment in the machine mines of the state.

The adverse condition of the coal trade is no doubt responsible for many of the casualties that have occurred in the mines during the past year. From a compilation of the returns it is found that there were forty-one fatalities, 159 accidents serious in character, and 103 of minor consequence, thus making the total casualties occurring during the year, 303. But once since the creation of the department has this number been exceeded. This occurred during 1893, when 327 casualties were reported. The unusual number was then attributed to the increase in the year's production of coal, which exceeded any in the state's history.

By a comparison of the accidents with the year's production, it is . found that 12,912,608 tons of coal were mined. In reclaiming this there. occurred forty-one fatalities, which equals 314,942 tons of coal mined to each life that was lost, an increase of 51,791 tons as compared with 1895. The returns also indicate that 81,211 tons were mined to each serious injury received as compared with 90,025 tons during the preceding year. It also developes that 125,365 tons were reclaimed to each minor accident that occurred, as against 67,078 tons during 1895, an increase of 58, 287 tons. This striking contrast between the serious and minor accidents, which appears during the past two years, is largely due to the fact that during the year that has just closed a more rigid investigation has been made as to the unfortunates recovery from the injuries received than has been the custom during former years. The forty-one fatalities reported occurred in fourteen counties as compared with sixteen counties during the preceding year. There were seven each in the counties of Athens, Guernsey and Stark, followed by six in Jackson. In these four counties there occurred 66 per cent. of the year's list as against 73 per cent. in six counties during the preceding year. In sixteen counties no fatalities occurred as compared with fourteen during the year of 1895. Serious accidents are reported in eighteen counties as compared with twenty-one during the former year. The greatest number appear in Stark, Jackson, Perry, Columbiana, Guernsey and Jefferson. The serious casualties in the above seven counties represent 60 per cent. of the In eleven counties they are represented by a single digit, and in twelve counties no serious accidents were reported. Minor accidents appear in eighteen counties. In twelve of these they are represented by a single digit, and in a like number no accidents of this character were reported. In the amount of totals it is found that 82 per cent. occurred in the eight counties of Stark, Perry, Jackson, Athens, Guernsey, Belmont, Jefferson and Columbiana, while in seven counties no accidents of any kind occurred during the year. The greatest gain in fatalities occurs in Guernsey and Athens counties. The largest increase in serious accidents appear in Columbiana and Stark, in each of which they are given as seven. The most pronounced gain in the minor class appears in Perry. Gains in the totals appear in fourteen counties. The greatest are found in Stark and Perry, while Guernsey and Columbiana each report nine. Athens and Jefferson report seven. Losses in fatalities occur in thirteen counties, Perry and Belmont being the most conspicuous. Losses of a serious nature, amounting to twenty-nine, are found in twelve counties, 50 per cent, of which occur in Belmont. Losses in the minor class appear in but three counties, and a decrease in the totals amounting to thirtyfour are shown in ten counties, the only one of prominence being Belmont, in which 41 per cent, of the number appear.

At the close of the year Mr. Edmund G. Arnot, Civil and Mining Engineer, who for a number of years has been an Inspector for several

of the large Casualty Companies who were doing an Employer's Liability business, at their request made a report to the Buréau of Statistics and Arbitration of the Casualty Companies, doing business in the United States. I have omitted his comments upon the defects in their methods in assuming risks, also his suggestions as to the remedy, and with his permission I present that portion of his report that is devoted to the dangers encountered in mining, and the result of the inspections that he made.

# REPORT OF EDMUND G. ARNOT, C. & M. E., TO THE BUREAU OF STATISTICS AND ARBITRATION OF THE CASUALTY COMPANIES DOING BUSINESS IN THE U. S.

Gentlemen: In presenting the following data, permit me to state that the information contained therein is based upon actual underground inspection work in the various mentioned districts in the interest of casualty insurance, as well as upon practical experience, obtained during the past thirty years in this and other countries, and that the numerous, serious and extra hazardous features which have been detected by underground inspections, show that the practice of issuing policies upon mines without inspection is worse than suicidal. Your especial attention is called to the difference between gaseous and non-gaseous, and slope and shaft mines.

#### CASUALTIES.

The use of machinery for cutting coal and the introduction of electricity into mines has been successful, and does not tend to increase the hazard, except where electric currents have been introduced into gaseous mines, and the blowing out of a fuse has disturbed the explosive dust and gas.

I make special mention of the fact that all dusty coal mines are equally as dangerous as gaseous ones, and that most of the mine catastrophes in the United States and in Europe may be accounted for attributing their cause to the ignition of coal dust, powder-smoke and gas.

The greatest number of accidents are caused by falling roofs, draw slate and coal, through the neglect of the injured to prop up their working-places and are incidental to the occupation. Numerous accidents result from riding upon cars and striking overhead timbers in entries, as well as by coupling trips. The accidents upon the surface are associated with switching at the tipples and are generally traceable to carelessness. Experience shows that a constant watchfulness is needed to keep the bank bosses and superintendents from becoming too familiar with danger and procrastinating too long.

#### EXPLOSIVES.

The use of explosives is about the same in all mining districts, except that some states prohibit the use of iron tampering bars and needles. Miners persist in opening metallic powder kegs by means of a coal pick, and making up their powder with a naked lamp upon their caps on the windward side of a keg of powder, so that the air current is liable to blow a spark into the keg. The drawing of shots which have failed to explode is very common and should be prohibited, want of judgment as to the proper time when to fire a shot has been the cause of many accidents. The same features prevail more or less in all states, and can be reduced by inspection, and the issuance of rules governing the use of explosives, approved of and adopted by the conference companies.

#### MINING LAWS.

The states of Pennsylvania, Ohio, West Virginia, Indiana, Tennesee, Kentucky, Alabama, Iowa, Kansas, Colorado, Illinois and Wyoming all have laws regarding coal mining, resembling each other, and providing for the proper ventilation, timbering and safe working of the mines, and periodical inspection by some competent person. The Pennsylvania, Ohio and Illinois laws are extensively expressed and contain more details than the other states. The state of Illinois laws distinctly states that "For any injury to person or property, occasioned by any willful violations of the mine act or willful failure to comply with any of its provisions, a right of action shall accrue to the party injured for any direct damages sustained thereby; and in case of loss of life by reason of such willful violation or willful failure as aforesaid, a right of action shall accrue to the widow of the person killed, his lineal heirs or adopted children, or to any other person or persons who were before such loss of life dependent for support on the person or persons so killed, for a like recovery of damages for the injuries sustained by reason of such loss of life or lives, not to exceed the sum of five thousand dollars." There is also a similar law in the state of Ohio. The general context of all the laws is about the same however, except as to age of minors, Alabama being ten years, Illinois thirteen, and Pennsylvania twelve years.

#### PENNSYLVANIA.

The depth of the coal seams below the surface, and the number of deep shafts, as well as the existence of great volumes of fire damp (Light Carburretted Hydrogen), makes the mines of Pennsylvania more than usually hazardous. The greatest mining disasters in the memory of the country have happened in the Pennsylvania coal fields, a squeeze, a mine afire and an explosion of gas is of frequent occurrence. The loss of life has been severe. The writer has had occasion to visit the several districts at different times, and to make underground inspections. There

is no chief mine inspector. District inspectors select their own routes. There is no mining bureau at Harrisburg. Inspectors send in their manuscript reports to the Secretary of the Interior to be edited and published. Each inspector is his own boss, so to speak.

The Pennsylvania operations embrace all kinds of underground work; long wall, and room and pillar, have different levels, galleries and slopes, are worked to a great extent by foreign and non-English speaking labor, and in many instances have extensive shaft houses, tipples, breakers and culm banks, all of which contribute toward and make the industry more hazardous than that of coal mining in the adjoining states. The generation of great volumes of fire damp makes the mines particularly undesirable risks. The safety of life depends upon the proper ventilation of the mines, and the faithful examination of the workings by a single man (the fire boss.) The existence of old oil well borings have been found in some mines and gas and oil have been known to exude therefrom, and to increase the inflammability of the coal.

The semi-Bituminous mines along the line of the Huntington Broad Top Railway are worked by drifts and slopes. The seams are irregular as is shown upon the Kelly seam, and not as safe as those in the state of Ohio.

OHIO.

The coal fields of Ohio have no deep shafts, are not gaseous (except about thirty-six mines), are more frequently worked by drifts and slopes than those of any other state, are under the most reliable and experienced state inspection of any coal fields in the Union, in that there is a well organized State Mining Bureau, under the direction of an experienced and scientific chief inspector, who is not harrassed by political interference, and has the direct supervision and direction of a practical corps of district inspectors.

The mining laws of the state of Ohio are similar to those of Pennsylvania, are based upon the mining laws of Great Britain, and are strictly enforced. Child and female labor is provided against, and the duty of operators is clearly defined.

The coal deposits are Bituminous and semi-Bituminous, are to be considered as horizontal seams, and do not pitch or require different levels or galleries. In the Hocking Valley and adjacent districts thereto, drifts prevail, and shafts seldom exceed one hundred feet in depth.

The Massillon district mines are worked mostly by shallow shafts upon somewhat irregular seams. There are some slopes and drift mines especially near New Philadelphia.

Ohio has had no serious mining disaster as in other states. Explosions are of rare occurrence, and the inundation of mines is unknown. Casualties have been confined mostly to causes incidental to the occupation, and disregard of employes for established rules. It is admitted

that there are a number of abandoned burning mines in the Hocking Valley district, which have been smouldering for years. They are not dangerous, however, nor contiguous to working mines, and are due not to spontaneous combustion, but to incendiarism, during the Hocking Valley labor troubles some years ago.

The statutory requirement regarding the supply of timbers for working places is strictly complied with, and not waived as in some other states.

The ventilation of one hundred cubic feet of air per minute per man is enforced, and a monthly record of the same submitted to the chief mine inspector. I have generally found the air in excess of the required volume.

Some of the mine entries in the Hocking Valley are lighted by incandescent electricity of low voltage.

Coal is cut both by pick and machinery. The labor is of different grades; skilled and unskilled, of foreign origin, and in many instances, non-English speaking.

#### ILLINOIS.

Deep shaft mining is the characteristic of the Illinois coal mining industry. It ranges from one hundred to one thousand feet in depth. Fire damp is found more or less in most of the mines, especially at Assumption and near Pana, but not to any great extent where the state law is complied with. The mining law is very extensive and covers the liability of the operators very distinctly. The coal dust is very dry in the vicinity of Pana and Taylorsville, and necessitates the sprinkling of entries to prevent dust explosions.

The mines near Danville and Streator have been extensively worked by all kinds of labor. Explosives are carelessly handled. An underground inspection of a thousand foot shaft mine showed that the workings contained large volumes of fire damp and defective air courses. The system of timbering is good and the roofs of the mines are very fair.

In one of the coal mining districts there is a special feature not generally known, of which there is no official record, and should be considered when considering the acceptance of risks. The feature consists of a submerged lake, forty feet below the surface, held in suspension by sand and over-lapping several counties and mines, and may be justly feared, unless caution is exercised when sinking shafts, and examining timbers of those shafts passing through the formation. There are indications of better and more careful mining throughout the entire state.

# INDIANA.

The Indiana coal mines are located near Terra Haute, Brazil and along the Illinois state line. The seams are of various thicknesses, horizontal and are worked mostly by shallow shatts which do not exceed one hundred feet in depth. There is some drift mining at Alum's Cave near Farmersbsurg.

The general condition of mining is not as good as in some other states, and indicates a lack of skill in underground work. There are several cases of mines having generated fire by spontaneous combustion I found two such cases, one near Brazil, and the other near Farmersburg; the mines may be considered non-gaseous, except near Evansville where gas has been encountered.

The roofs of most of the mines are very irregular, and are interspersed with uncertain nigger heads. Entry timbers are sometimes omitted.

There is no chief of bureau. Local inspectors are appointed by their own districts and report to some official at the state capital who is connected with the Geological Department. The state publishes no mining report. The inspectors manuscripts are on file at the state capital.

The system of timbering is supposed to be the same as in Ohio, but the requirements are indifferently endorsed. The shaft houses are generally small, and the tipples of cheap construction.

#### WEST VIRGINIA.

The mines are mostly drifts, located upon the Virginia line near Pocahontas, and along the lines of the N. & W. and C. & O. Railways. Shafts are not numerous. The seams are horizontal and in some instances are eight feet thick. There are a few well conducted mines, but the greater portion are worked cheaply, by cheap and colored labor of an uncertain type. The Pocahontas district contains some gas, but not to any great extent.

The system of timbering is one of the most objectionable features, on account of the operators doing the timbering in rooms for the miners. Timber gangs are employed and frequently neglect to prop up rooms where men are working. There are quite a number of exceptions, however, where miners do their own propping. Some of the mines are very dry and require sprinkling to allay explosive dust.

The mines along the New River between Clifton's Forge and Charleston, are mostly located upon high bluffs, reached by steep incline railways, upon which coal is lowered in cars to the railroads. Electric motors are used in some mines for hauling purposes. There is some fire-damp in that portion of the state toward the Ohio river where shafts are used.

There is an established mine inspector at Charleston, governed by a law similar to that of the state of Ohio. The general character of the mines, however, does not indicate the care usually found in mines of other states. The miners of Pocahontas and Elkhorn are particularly lawless and inferior. The Pocahontas and Lick Branch mines are the two best kept and regulated mines in the state.

Respectfully,

(Signed.) Boston, January 4, 1897. EDMUND G. ARNOT, C. & M. Engineer.

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# INSPECTOR OF MINES.

Table Showing the Number of Fatal, Serious and Minor Accidents, and the Number of Each Classification that Occurred in Each County.

Counties.	Fatal.	Serious.	Minor.	Total.
Athens Belmont Carroll Columbiana Coshocton Gallia Guernsey Harrison	7 3 2 1 1 7	14 7 5 17 4 1 15	11 15 2 5 1	32 25 7 24 6 2 27
Holmes Hocking Jackson Jefferson Lawrence Mahoning Medina Meigs	1 6 2	2 21 13 2 3	2 11 10 1	5 38 25 1
Meigs Morgan Monroe Muskingum Noble Perry Portage	1 1 1	19 1	1 18 4	1 1 1 38 5
Stark	7 1	25 4 4 2	8 3 1	40 1 7 4
Totals	41	159	103	303

# EXECUTIVE DOCUMENTS.

Table Showing a Comparison of the Casualties of 1896 with Those of 1895.

		189	95.			189	96.		То	tal.
Counties.	Fatal.	Serious.	Minor.	Total.	Fatal.	Serious	Minor.	Ťotal.	Gain.	Loss.
Athens Belmont Carroll Columbiana Coshocton Gallia Guernsey Harrison Holmes Hocking Jackson Jefferson Lawrence Mahoning Medina Meigs Morgan Monroe Muskingum Noble Perry Portage Scioto Stark Summit Trumbull Tuscarawas Vinton Washington	2 8 2 1 1 , 4 8 4  1 1 , 5  1	17 20 2 10 2 10 2 16	6 11 3 5	25 39 7 7 15 3 	7 3 2 1 1 7  1 6 2  1 1	14 7 5 17 4 1 15 22 21 13 3 3	11 15 2 5 1 1 10 1 4 1 8	32 25 7 24 6 2 27 	7 9 3 2 9 7 1 1 10	14
Totals	52	152	67	271	41	159	103	303	66	3

# Table Showing the Comparison of the Accidents Occurring in 1895 and 1896.

	Fa	tal.	Seri	ous.	Min	or.
Counties.				,		
	Gain.	Loss.	Gain.	Loss.	Gain.	Loss.
Athens	5			3	5	
Belmont		5		13	4	
Carroll'	<b></b>	2	3	••••		1
Columbiana	2		7			
Coshocton			2		1	
Gallia	1		1			
Guernsey	7			1	3	
Harrison						
Holmes				1		
Hocking		3		1		
Jackson		2	4			5
Jefferson	1	2	3		6	
Lawrence		l			1	
Mahoning		1		1		
Medina		1			1	
Meigs				1	2	
Morgan						
Monroe	1					
Muskingum	l	1			1	
Noble	i					
Ретту	I	8	5	******	13	******
Portage		ĭ		4	1	
Scioto				ī		
Stark	2		7	<b></b>	3	
Summit	l ī		L			
Trumbull	l			1		
Tuscarawas		3		ī	1	
Vinton		ĭ	4	<b></b>	l	1
Washington		l	l <sup>*</sup> '	1		
Wayne	1	1			1	
₩ ау ше <sup></sup>			!			
Totals	20	31	36	29	43	7

# SOURCES OF ACCIDENTS DURING THE YEAR 1896.

The accompanying tables are designed to more clearly exhibit the sources from which casualties occur, also the number that have occurred under the several classifications. It is especially gratifying to be able to report that none were attributed to new or unusual sources, and that no horror startling in its character occurred during the year. The records show that the casualties occurred singly, and in nearly every instance from dangers with which the craft are thoroughly conversant.

On October 7th the department received notice that on that day John Matheny, a miner in the Hartford mine in Guernsey county, had been found hanging on the electric wires in the mine, and that when discovered he was dead. As this was the first casualty emanating from this source that had come to the knowledge of the Department, it caused great anxiety. This was intensified by the fact that in conjunction with the Trail Run mine this mine had but recently been equipped with electric mining machines, new in pattern and designed to be operated by an alternating current of higher voltage than that in general use in the mines throughout the state. The power was transmitted to the machines by means of insulated wire, three lines instead of two being used, which method is characterized in trade as the "Three Phaze System." It was deemed best under the circumstances that the inquiry as to the cause of the death should be exhaustive, and with this in view an autopsy was made by Dr. A. M. Bleile, Professor of Physiology of the Ohio State University, after which a large number of witnesses were examined. The Coronor, after hearing the evidence, found that the deceased came to his death by heart failure. Hence it is that in the tables this fatality is recorded under that classification.

Statistics show that in all countries falls have always been the source from which the greatest number of accidents occurred. In Ohio they have invariably furnished as many as all other sources combined.

In the accompanying tables they have been subdivided, and are exhibited under the classifications "Falls of Roof" and "Falls of Coal." It will be seen that falls of roof contribute more to the list than any of the other classifications, as under this sub-division the records show that there occurred twenty-two deaths, which equals fifty-three and six-tenths per cent. of the year's list of fatalities, sixty-eight serious injuries, and forty-three injuries of a minor character, thus making a total of 133. It will be seen that this is forty-three and eight-tenths per cent. of the entire casualties for the year, as compared with thirty-nine and eight-tenths during the preceding year, thirty-eight and one-tenth per cent. in 1894, thirty-six and one-tenth per cent. in 1893 and forty-three and three-tenths per cent. in 1892. The tables further show that falls of coal are

responsible for eleven and two-tenths per cent. of the year's casualties as compared with seventeen per cent. during 1895, fifteen and two-tenths per cent. in 1894, sixteen and nine-tenths per cent. in 1893, and fourteen and one-tenth per cent. during 1892. By adding falls of roof with falls of coal it is found that they form fifty-five per cent. of the entire year's list of accidents, as compared with fifty-six and eight-tenths per cent. during the preceding year, fifty-three and three-tenths per cent. during 1894, fifty-three per cent. in 1893, and fifty-seven and four-tenths per cent. during 1892. When it is considered that falls are almost solely due to negligence in proping, the uniformity in the percentage of accidents due to falls extending over so great a period is certainly remarkable, as it would seem but natural that the number should be reduced by the law which requires the operator to deliver suitable timber at the working faces.

Mine cars are next in the order of perils encountered in conducting mining operations. During the year just closed they were the source of five fatal accidents, forty-two that were serious, and twenty-seven of minor importance, a total of seventy-four. This is twenty-four per cent. of the year's list, as compared with twenty-four and seven-tenths per cent. during 1895, twenty-three and three-tenths per cent. during 1894, twenty-six and nine-tenths per cent. in 1893 and twenty-five per cent. in 1892. The use of explosives is responsible for twenty of the casualties in the year's list, three of which were fatal, seven serious and ten minor in character.

To the presence of fire-damp is attributed seven casualties, one of which was fatal. This occurred on May tenth, in the Glenwood shaft in Noble county. This mine had been reported abandoned during 1891, and had remained so until shortly prior to the accident, when it was pumped out with a view of re-opening it. The boiler was blown out on the Saturday previous for the purpose of being cleaned, and on Sunday afternoon Mr. Butler McMillen, the mine boss, went down the shaft to start the pump, the exhaust steam of which created the ventilating current. After turning on the steam, he walked down the return airway where he met the gas that had accumulated during the twenty-four hours suspension: The gas quickly ignited from his lamp and so burned him that he died the following day. Of the thirty-six casualties that occurred from this source during the past nine years, this is the fourth that has resulted fatally. The death just previous which occurred from this source was during 1894, when John Woodsman, in attempting to climb over a fall in the Phœnix No. 1 mine in Athens county, met a body of gas which ignited and burned him to death. During 1890 Thos. Cox on entering the New Shaft mine at Salineville under almost exactly the same circumstances as existed at Glenwood, met his death by explosion, and during the latter part of 1887 Peter Krapus, while attempting to secure his tools which had been cut off by a fall, came in contact with a body of gas given off by a quantity of petroleum oil which percolates through the roof in the Trail Run mine and was burned to death. When it is known that fire-damp (C. H.,) is present in forty mines in the state, the fact that so few fatalities have occurred from this source is particularly gratifying.

Casualties which arise from shots blowing through the rib are the product of careless and unsystematic mining. The records fail to show that one has occurred in a mine that is regularly surveyed, and where the rooms are driven on a course given by a competent engineer. The year's records show that two serious and one minor accident occurred under this division during the year just closed.

The last in the list of sources of accidents was added last year, and is designated as "Injuries received from mining machines." Prior to that time but one accident eminating from this source, and that a minor one which occurred in 1893, had been reported. During the preceding year three casualties, one in each of the classifications, arose from this source, and during the one just closed, a like number are reported, two of which were serious in their nature and one was of minor consequence.

TABLE SHOWING THE NUMBER AND CHARACTER OF THE ACCIDENTS OCCURRING DURING THE YEAR AND TO WHAT SOURCES THEY WERE ATTRIBUTED.

Causes.	Fatal	Serious	Minor	Total	Percentage
Falls of roof	22	68	43	133	43.8 \ 55 %
Falls of coal		20	8	34	11.2 } 33 %
Injured by mine cars	5	42	27	74	24.4
Premature explosion	3	7	10	20	6.6
Explosion of gas	1	3	3	7	2.3
Caught under cage		1	1	2	.7
Injured by mules and horses	l	5	4	9	3.
Falls down shaft		1		1	3
Injured by R. R. cars			1	2	.7
Fall from tipple		i	•	์ โ	.3
Fall from tipple		2	1	3	1.0
Injured by miner's pick			i	1	.3
Heart failure				3	1.
Injured by mining machine		2	1	3	: 1.
Miscellaneous.	1	6	3	10	3.3
Totals	41	159	103	303	

# INSPECTOR OF MINES.

TABLE SHOWING THE NUMBER AND CHARACTER OF ACCIDENTS WHICH RESULTED FROM THE PRINCIPAL SOURCES AS REPORTED FROM EACH COUNTY,

Athens 3 2 2 4 3 4 2 1 1 2			alls rooi			ills coal		Inii mir			tu	rem re e osio	x-	0	olos: f fir amp	e		isce		
Belmont	Counties.	Fatal.	Serions.	Minor.	Fatal.	Serious,	Minor.	Fatal.	Serious.	Minor.	Fatal	Serions.	Minor.	Fatal.	Serious.	Minor.	Fatal.	Serions.	Minor.	T otal.
Totals 22   68   43   6   20   8   5   42   27   3   9   11   1   3   3   4   17   11   30	Hocking Jackson Jefferson Lawrence Mahoning Medina Meigs Morgan Monroe Muskingum Noble Perry Portage Scioto Stark Summit Trumbull Tuscarawas Vinton Wayne	1 1 4 4	2 3 4 4 1 1 4 1 1 1 8 2 3 6 1 13 13 2 2 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 2 1 2 2 2 1 2 2 2 2 3	7 1 1  5 8 1  6 1  1  1	1	3	1		5 1 4  5  8  8  2 2	1	2	3	1 2 1		1	2	1	1 1 4 1 1	2	32 25 24 24 25 25 25 25 25 25 25 25 25 26 26 26 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28

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# EXECUTIVE DOCUMENTS.

Table Showing the Number of Accidents and their Causes as Reported to the Department from Nov. 15, 1887, to Nov. 15, 1896.

Years,	Falls of roof.	Falls of coal.	Injured by mine cars.	Premature explosion.	Explosion of gas.	Falls down shaft.	Crushed under cage.	Falls from tipple.	Kicked by mule or horse	Injured by R. R. cars.	Falls of timber.	No cause given.	ot blowing through	Injured by miner's pick.	Heart failure.	Injured by mining machine.	Miscellaneous.	Totals.
	H B	F.	臣	P.	H	Fa	5	Fa	Ki	In	Fa	ž	Shot rib	10.	H	<u> </u>	K	To
1888 1889 1890 1891 1892 1893 1895 1896	100 92 109 112 126 118 98 108 133	47 50 44 26 41 55 39 46 34	46 48 59 47 73 88 60 67 74	13 12 13 24 21 17 17 23 20	4 4 6 3 2 5 1 7	1 2 5 5 1 1	8 2 1 3 1 1 4 3 2	3  2 4 1  1	2 4 2 5 4 6 1 4 9	3 5 2 2 2	 4 2 5 3 	5 3 3 	1 3 2 3 3	1 1 3 1 2 1	1 4 3	3 3	9 11 7 14 11 14 15 8 10	238 230 245 242 291 327 257 271 303
Totals	996	'38 <b>2</b>	562	160	36	17	25	11	37	16	14	11	13	10	9	6	99	2,404

THE POLLOWING TABLE IS DESIGNED TO SHOW THE NUMBER OF TONS OF COAL MINED TO THE LIFE LOST, TO THE SERIOUS INJURY AND TO THE TOTAL NUMBER OF FATAL AND SERIOUS ACCIDENTS FOR EACH YEAR SINCE THE CREATION OF THE DEPARTMENT.

	fatal acci- nts.	us b	or serior ber o	ned to the pusly injured a fons to the	Name of Chief Mine Inspector.	
Years. No. fatal dents.		No. ser not	Fatal.	Serious.	Total.	
874	20	80	108,919	4,844	31,419	Andrew Roy
875	23	40	202,667	121,606	77,210	"
875	13	70	269,999	50,000	42,168	í
877	30	39	175,000	134,615	76,087	<b>(</b>
878*	20			[		Jas. D. Posten
879†						David Owen
880	22	61	292,624	114,754	84,217	Andrew Roy
881	29		283,621			"
882	25		378,000			"
883	26		316,516	140 400		
884	26	40	226,636	143,433	86,932	Thos. B. Bancroft
885	51	32	244,258	153,258	94,170	"
886 887	43	65	194,308	194,772	78,104	"
888	36 29	75 79	286,158	137,356 138,113	92,808 100.934	i
889	33	52	376,239 330,527	209,757	128,322	Robert M. Haseltine
890	42	52	280,687	226,708	125,413	"
891	44	66	296,595	197,730	118,636	"
892	42	93	347,929	157,129	108,170	"
8 <b>93</b>	32	123	<b>463,378</b>	120,553	95,665	"
894	45	116	364,672	102,674	73,976	44
895	52	152	263,151	90,025	67,078	44
896	41	159	314,942	81,211	64,563	66

<sup>\*</sup>Number and amount not given.

From 1874 to 1886, owing to their being no law compelling operators to report accidents, the returns as given are not reliable. In 1886 the law was amended requiring that all accidents be reported. The production of the state from 1874 to 1883 is estimated.

<sup>†</sup>No report made during the year.

# Accidents of 1895-1896.

#### FATAL ACCIDENTS.

#### 1895.

November 23. Joseph Hallwood, Norris mine, Guernsey county, killed by a fall of slate.

December 4. William Robert Lee, Jones Slope mine, Gallia county, killed by a fall of slate.

December 12. Peter Brady, Jackson Hill mine, Jackson county, injured by an explosion of powder. Died December 14.

December 17. Jacob Sprouse, Fluhart No. 8 mine, Jackson county, seriously burned by an explosion of powder. Died January 9.

#### 1896.

January 3. Wesley Thornton, Halbert mine, Athens county, killed by a fall of bone coal.

January 15. Timothy Dukes, Fairfield mine, Columbiana county, injured by being crushed between a rib and a loaded mine car. Died January 18.

January 21. Hiram Gary, Pioneer mine, Guernsey county, injured by a fall of slate. Died January 22.

January 31. William Johnson, Price\*mine, Athens county, killed by a fall of soap-stone.

February 4. Ellis Stockwell, Hartford mine, Guernsey county, injured by a fall of slate. Died February 6.

February 5. George Collins, Riley mine, Coshocton county, killed by a fall of slate.

February 12. John Howarth, Brush Fork No. 3 mine, Hocking county, killed by blocking a standing shot of coal.

February 13. John Dlesk, Wheeling Creek No. 1 mine, Belmont county, killed by a fall of coal.

February 15, Isaac Goodin, Green Hollow mine, Perry county, killed by a fall of slate.

March 5. John Corbett, Hiawatha mine, Athens county, died from heart failure while at work in the mine.

March 5. Morgan Parker, Evans mine, Athens county, killed by a fall of roof. May 7. John Moore, Bruce mine, Monroe county, killed by a fall of stone.

May 10. Butler McMillen, Glenwood mine, Noble county, killed by an explosion of gas.

May 25. George R. Patterson, Yorkville mine, Belmont county, injured by a fall of slate. Died June 30.

May 29. George Poland, Scott's mine, Guernsey county, injured by a fall of coal. Died June 10.

June 10. Jacob Kidd, Hughes mine, Belmont county, injured by a fall of soapstone. Died July 28.

June 15. Samuel Davis, North Massillon mine, Stark county, killed by a fall of rock.

June 15. James Harrington, Superior No. 2 mine, Jackson county, coroner reports "came to his death by falling into a pool of water while in a fit."

June 23. George Hauxwell, Nutwood mine, Stark county, killed by a fall of slate.

July 14. Alex Bolinski, Dillon No. 2 mine, Jefferson county, injured by a fall of slate. Died August 7.

July 16. John Sullivan, Emma No. 2 mine, Jackson county, killed by a fall of slate.

July 24. James Morgan, Wheeling and Lake Erie No 1 mine, Stark county, killed by a fall of draw slate.

August c. Theodore Exline, Jackson Hill mine, Jackson county, killed by a fall of slate.

August 7. John Wilson, Walhounding mine, Guernsey county, killed by striking his head against a cross timber while riding on a loaded mine car.

August 17. Chas. Swearingen, Wellston No. 8 mine, Jackson county, killed by falling and a mine car running over him.

August 20. Shelby Cox, Minker Run mine, Athens county, injured by a fall of slate. Died August 21.

August 23. Thos. Brooks, Warwick mine, Stark county, coroner reports "died of heart failure while at work in his room."

August 24. Frank Tenen, Dillon No. 2 mine, Jefferson county, killed by uncoupling mine cars on the tipple.

September 8. Bernard Longanki, Pigeon Run mine, Stark county, killed by a fall of slate.

September 15. Wm. Hall, Lake View mine, Summit county, killed by being crushed between the roof and a loaded mine car.

September 18. Chas. Hartman, No. 10 mine, Athens county, killed by being burned by an explosion of powder.

September 28. David Jones, Elm Run mine, Stark county, killed by a fall of coal.

October 7. John Matheny, Hartford mine, Guernsey county, found dead and in contact with electric wires.

October 18. John Bryer, West Massillon No. 2 mine, Stark County, killed by a fall of slate and coal.

October 15. Thos. A. Holland, Cherry Valley No. 2 mine, Columbiana county, killed by a fall of slate.

October 27. Andrew Lutzig, No. 24 mine, Athens county, killed by a fall of coal.

November 9. Wm. Bradshaw, Murray mine, Guernsey county, injured by a fall of stone. Died Nov. 15.

#### SERIOUS ACCIDENTS.

1895.

November 16. George Whiteworth, Hutson Run mine, Medina county, leg broken by a fall of slate.

November 18. John Hammond, Jr., Minglewood mine, Stark county, face, neck and arms injured by being burned with gas.

November 23. Josh Gaffney, Sarotoga mine, Columbiana county, injured by a fall of slate.

November 25. James Rice, Carl mine, Gallia county, hips and ankle injured by a fall of draw slate.

November 26. Robert Lewis, Saratoga No. 2. mine, Columbiana county, burned by an explosion of gas.

November 29. Ezekiel Gipson, Half Moon mine, Athens county, bone in foot fractured, and leg injured by mine cars.

December 2. John Engle, Anderson mine, Stark county, foot broken by a fall of slate.

December 2. Wm. Mills, Akron No. 2 mine, Mediua county, leg injured by a fall of roof.

December 4. Joseph Robeski, Sherrodsville No. 3 mine, Carroll county, three ribs broken by a fall of draw slate.

December 10. Mick Devet, Dillon No. 2 mine, Jefferson county, back injured by a fall of slate.

December 11. Naron James, Brock Hill No. 3 mine, Tuscarawas county, arm fractured by riding on the rear end of a mine car.

December 11. Daniel McElhaney, Dalton mine, Wayne county, back injured by a fall of slate.

December 13. Joseph Lyman, No. 21 mine, Perry county, back and ankle injured by a fall of draw slate.

December 16. John McInnis, Young Shaft mine, Stark county, shoulder bruised and ankle sprained by a fall of rock.

December 18. Chas. Harbaugh, No. 21 mine. Perry county, leg broken by falling on the stack blower of the engine shaft.

December 18 James Weisman, Alma mine, Jackson county, leg fractured by a premature explosion.

December 18. Phillip Brown, Springfield mine, Jackson county, one rib broken and head cut by falling from a railway car.

December 20. John Dishong, Jr., No 3 mine, Perry county, right leg fractured by being caught between mine cars.

December 23. Nevel Ulrich, Dillon No. 2 mine, Jefferson county, foot badly crushed by being caught between mine car and rib.

December 26. Wm. Burrow, No. 5 mine. Perry county, ear cut off by a fall of slate.

December 26. Dan Turrell, Charter Oak mine, Meigs county, jaw-bone cracked by a fall of slate.

December 28. George Garry, Charter Oak mine, Meigs county, leg broken by a fall of slate.

December 30. Nicholas Cristman, Elm Run mine, Stark county, foot broken by mine car running over it.

#### 1896.

January 2. James Bruce, Franklin mine, Belmont county, hand mashed by wagon jumping the track.

January 2. Levi Weller, Walhounding mine, Guernsey county, leg broken by a fall of coal.

January 4. Mat. Smith, New Shaft mine, (Columbiana county, leg broken by being struck with a hanging rope.

January 7. Leander Walton, Trail Run mine, Guernsey county, leg broken by coal falling in the room.

January 10. Joseph Pfling, Dillon No. 2 mine, Jefferson county, back and hip injured by a fall of slate.

January 10. Izriah Fry, Trial Run mine, Guernsey county, leg broken by being caught between tail chain and cars.

January 21. Thos. Miles, Pioneer mine, Guernsey county, four ribs broken by a fall of slate.

January 22. Alfred Wade, Superior No. 6 mine, Jackson county, burned with powder.

January 22. Dave Wade, Superior No. 6 mine, Jackson county, burned with powder.

January 29. Patrick Curtis, No. 4 mine, Athens county, leg and arm broken by a fall of slate.

January 30. Louis Rutter, No. 21 mine, Athens county, leg and arm bruised by bottom coal falling on him.

February 7. W. E. Miller, Midvale No. 2 mine, Tuscarawas county, head and shoulder hurt by being caught between mine car and rib.

February 11. Burt Kinney, Black Diamond mine, Athens county, leg fractured by a fall of soap-stone.

February 12. Arthur Mapes, Price (G & B) mine, Jackson county, lip cut and seven teeth knocked out by being kicked by a mule.

February 13. Wm. D. Morrison, Young Shaft mine, Stark county, leg broken by a mine car.

February 13. James Mitchell, Fairfield No. 1 mine, Columbiana county, ankle bruised by a fall of stone.

February 13. Chas. Polliver, Tom Corwin No. 2 mine, Jackson county, rib broken by being kicked by a mule.

February 15. Andrew Harris, Green Hollow mine, Perry county, leg and ankle bruised by a fall of slate.

February 19. Willie Slatzer, No. 139 mine, Perry county, injured by mine cars jumping the track, and knocking out a post which fell on his leg.

February 21. Fred Bloom, Milton No 2 mine, Jackson county, back injured by a fall of slate.

February 24. John Garman, West Massillon No. 3 mine, Stark county, leg broken by a fall of slate.

February 25. Chas. Allman, Superior No. 3 mine, Jackson county, leg broken by being caught between a mine car and rib.

February 28. Wm. Richards, Hutson No. 1 mine, Portage county, back and leg hurt by a tall of slate.

February 28. James Donaldson. Lehigh Valley mine, Tuscarawas county, foot broken by a fall of coal.

February 29. Fred Milligan, Long Run No. 2 mine, Jefferson county, nose mashed and forehead cut by being kicked by a mule.

March 1. John Reed, Jr., Champion mine, Guernsey county, injured by being caught between mine cars.

March 2. James Hutchison, Elko mine, Vinton county, finger cut off by mine car jumping the track.

March 2. Mike Fauba, Walhounding mine, Guernsey county, leg broken by a fall of slate.

March 6. Ellsworth Davey, Eagle Hill mine, Tuscarawas county, leg broken by a fall of coal after being blasted.

March 8. Harry Klusmier, Shawnee Valley mine, Perry county, ankle sprained while riding on an empty mine car, which jumped the track and struck a post.

March 12. Dick Anderson, Elko mine, Vinton county, fingers cut off by mine car jumping the track.

March 14. Edward Shoman, Conesville No. 3 mine, Coshocton county, back and ribs injured by a fall of dirt.

March 17. Thos. Howell, Central mine, Jackson county, collar bone broken by a fall of slate.

March 18. Peter Hoover, Clover Hill mine, Stark county, leg injured by a fall of slate.

March 21. Alexander Raynor, Jones coal mine, Jackson county, leg broken by being caught between mine cars.

March 23. James McCullough, Black Diamond mine, Athens county, foot broken by a mine car.

March 25. Milton Mayhugh, Belmont No. 2 mine, Belmont county, leg broken in two places by falling from a loaded mine car.

March 27. Elijah West, Morgan Run No. 1 mine, Coshocton county, back injured by a fall of slate.

April —. Wm. Lacey, Fairfield No. 1 mine, Columbiana county, leg broken by a fall of coal.

April 2. Thos. Boolan, Fairfield No. 1 mine, Columbiana county, bruised by being run over by empty mine cars.

April 3. Chas. Schaffer, Bessie mine, Athens county, hand injured by cutter bar of mining machine.

April 6. Henry Kreitz, Shawnee Valley mine, Perry county, leg broken and back injured by rope breaking and falling in the shaft.

April 9. Andrew Bendeck, Dillon No. 2 mine, Jefferson county, knee fractured by fall of slate.

April 13. Wm. Young, Fairfield No. 1 mine, Columbiana county, arm broken by slipping and falling in front of a car.

April 14. Edward Call, No 67 mine, Perry county, compound fracture of left knee by a fall of slate.

April 30. Joseph Kiblin, Cherry Valley mine, Columbiana county, scalp injured by a shot blowing through the rib.

April 30. Eli Samon, Milton No. 1 mine, Jackson county, leg broken by a fall of slate.

May 14. James Pollock, Clover Hill mine, Stark county, four ribs broken by being knocked down by a mule.

May 14. Thos. Powell, Western Ohio No. 1 mine, Stark county, hip injured by bearing in of coal.

May 15. Michael Wiseman, Peacock mine, Meigs county, back seriously injured by a fall of slate.

May 20. Mike Searto, Long Run No. 1 mine, Jefferson county, back and leg seriously injured by a fall of slate.

May 28. Louis Harig, Young Shaft mine, Stark county, hip slightly injured by shot blowing through the rib.

May 28. James Clara, Long Run No. 1 mine, Jefferson county, foot mashed by a fall of draw slate.

June-. B. Kellner, No. 16 mine, Athens county, leg broken by a fall of coal.

June 2. Robert Wilson, Dillion No. 2 mine, Jefferson county, arm broken by being caught between mine cars and roof.

June 4. George Wilkinson, Champion mine, Guernsey county, arm injured by mine cars.

June 5. Mike Chicoski, Long Run mine, Jefferson county, leg broken by a fall of slate.

June 6. Patrick Mullen, Huff's Run No. 1 mine, Carroll County, collar bone broken by a fall of coal.

June 10. John Kouts, No. 20 mine, Perry county, leg broken by a fall of draw

June 11. Clyde Wilson, Long Run No. 1 mine, Jefferson county, leg broken by a fall of slate.

June 12. Thomas F. McCormick, McPadyen mine, Jefferson county, foot sprained by stone cars running over it.

June 12. Benjamin Black, West Massillon No. 2 mine, Stark county, hip hurt by a fall of slate.

June 17. Henry Gibbons, Manly or Furnace No. 2 mine, Perry county, arm broken by hauling coal.

June 19. Jess Skinner, Superior No. 4 mine, Jackson county, crushed through the hips by a fall of slate.

June 19. John Davis, Rose Hill mine, stark county, leg broken by damaged squib.

June 22. Lant Randolph, Rock Hill mine, Belmont county, arm broken while placing a loaded mine car on the track.

June 23. Frank Bants, Cherry Valley mine, Columbiana county, wrist dislocated by a fall of slate.

June 25. Wm. Peck, Walnut Hill mine, Belmont county, leg injured by mine cars.

June 25. Poney Colven, Shawnee Valley mine, Perry county, hips injured by being caught between the mine car and door.

July 1. Chas. Williams, Federal Valley No. 2 mine, Athens county, back seriously injured by a fall of soap-stone.

July 7. Peter Bartel, Warwick mine, Stark county, leg broken by a fall of stone.
July 21. Kirk Secrest, Hartford mine, Guernsey county, collar bone broken by a fall of coal.

July 21. Wm. Lloyd, Huff's Run No. 1 mine, Carroll county, hip dislocated by a fall of slate.

July 24. Nicholas Krebs, Upper Pigeon Run mine, Stark county, both legs broken by a fall of slate.

July 25. George Hardgrove, West Massillon No. 2 mine, Stark county, injured by a fall of slate in the entry.

July 27. Mick Timko, Maple Hill mine, Belmont county, leg broken by a mine car jumping the track.

August 3. Sylvester Cottrill, Elko mine, Vinton county, seriously burned by drying a damp squib over his lamp, which ignited and fired a keg of powder.

. August 3. Elmer Shaffer, Elko mine, Vinton county, seriously burned by the preceding accident.

August 11. James Murphy, Quaker Valley mine, Columbiana county, finger mashed by being caught between the chieve wheel and rope.

August 13. David Dobins, Federal Valley No. 1 mine, Athens county, leg broken by a fall of bone coal. Also back and breast injured.

August 13. James McCort, Jones Slope mine, Jackson county, arms and head cut by a fall of slate.

August 15. W. T. Sines, Congo mine, Perry county, leg injured by falling between mine cars.

August 16. John Jones, Young Shaft mine, Stark county, leg broken and hand cut by blasting down coal.

August 17. Adam Getz, Minglewood mine, Stark county, hip dislocated and shoulder injured by a fall of stone.

August 18. Thos. Bush, Minglewood mine, Stark county, ankle joint sprained by a fall of slate.

August 25. John Bowen, West Massillon No. 2 mine, Stark county, ankle sprained by a fall of coal.

August 27. Conrad Clourner, Cherry Valley No. 3 mine, Columbiana county, back and legs injured by a fall of slate.

August 27. Matt Gross, Morgan Run No. 3 mine, Coshocton county, rib broken by a fall of false roof.

August 31. Nick Grill, West Massillon No. 2 mine, Stark county, leg broken while drawing pillars.

September 1. Joseph Simmons, No. 10 mine, Athens county, fingers mashed by a cage.

September 1. Owen Jones, Huff's Run No. 1 mine, Carroll county, head and face injured and arm broken by a mine car jumping the track.

September 1. John Taylor, Morgan Run No. 3 mine, Coshocton county, collar bone broken by a fall of false roof.

September 2. James Wallace, New Shaft mine, Columbiana county, leg and side injured by being run over by mine cars.

September 4. J. H. Miller, Hart mine, Perry county, back injured by careless driving.

September 5. John Slown, Trail Run mine, Guernsey county, foot injured by a mining machine.

September 8. Wm. McCloud, Fox Lake No. 2 mine, Wayne county, leg broken by a fall of stone.

September 8. Joseph Thomas, Cawthorn mine, Hocking county, back sprained by a fall of slate.

September 11. Thos. Morgan, Elm Run mine, Stark county, leg broken by cars jumping the track.

September 11. Tal Thomas, Elm Run mine, Stark county, leg broken by mine cars jumping the track.

September 11. Adam Tenear, Miller Hill mine, Stark county, nose and skull fractured by a fall of slate.

September 12. Morris Tolbert, Milton No. 2 mine, Jackson county, breast injured by being caught between the roof and mine car.

September 18. Julius Hartman, No. 10 mine, Athens county, seriously burned by an explosion of powder.

September 18. Joseph Campbell, Walhounding mine, Guernsey county, leg cut by a fall of slate.

September 21. Hughn Talbert, Dillon No. 2 mine, Jefferson county, back injured by a fall of stone.

September 23. Ben. Fencher, Hemlock mine, Perry county, side and back injured by a fall of bone coal.

September 24. Frank Rosanski, Wellston No. 3 mine, Jackson county, ankle dislocated by a fall of rock in the face of his room.

September 24. Thos. Griffith, Walhounding mine, Guerusey county, collar bone broken by being caught between mine car and post.

September 26. John Simmons, Fluhart No. 2 mine, Jackson county, leg cut and bruised by a fall of slate.

October 1. Joseph Currington, Superior No. 1 mine, Jackson county, hip partially dislocated in jumping down the slope to escape falling slate.

October 1. Lewis Evans, Sand Run mine, Hocking county, leg injured by a horse falling on him.

October 5. Wm. Robinett, No. 10 mine, Athens county, leg badly injured by a mine car getting off the track.

October 6. George James, Fluhart No. 2 mine, Jackson county, leg broken by a fall of slate.

October 7. Andrew Rier, Cherry Valley No. 2 mine, Columbiana county, face arm and body burned by an explosion of powder.

October 9. Wm. Reasoner, Briar Ridge No. 2 mine, Guernsey county, back sprained by a fall of draw slate.

October 13. John Evans, Old Shaft mine, Columbiana county, four fingers taken off by being caught in the gears of a pump.

October 16. Wm. Thomas, Milton No. 1 mine, Jackson county, arm broken by a fall of roof.

October 18. C. W. Creig, New No. 29 mine, Athens county, leg broken by a fall of coal.

October 21. Lewis Dudley, Hartford mine Guernsey county, leg broken by a fall of coal.

October 23. Thos. Bowers, Wheeling Creek No. 1 mine, Belmont county, face cut and leg broken by a fall of soap-stone.

October 27. Alfred Wade, Superior No. 6 mine, Jackson county, leg broken by a fall of draw slate.

October 27. Hays Garber, Walhounding mine, Guernsey county, side and leg injured by being caught between mine cars.

October 30. Milt Kinney, Briar Ridge No. 2 mine, Guernsey county, hips injured by a fall of coal.

October 30. Dane Nash, Minker Run mine, Athens county, arm broken while riding on loaded mine cars.

October 30. Andy Donahoe, Congo mine, Perry county, shoulder dislocated while getting out of empty mine cars.

October 30. George Thomas, Congo mine, Perry county, leg cut and bruised by machine truck and empty mine car.

October 31. Jacob Snyder, Scott's No. 1 mine, Carroll county, leg broken by fall of draw slate,

November 1. John Foster, Nutwood mine, Stark county, leg broken by a fall of slate.

November 5. Stephen Neff, Lower mine, Perry county, hip and ankle sprained by a fall of draw slate.

November 5. James Blaemire, Salem mine, Columbiana county, leg broken by falling from the tipple.

November 7. Frank Smith, Wellston No. 3 mine, Jackson county, two ribs broken by a fall of slate.

November 10. Phillip Glutting, Hern Brook mine, Stark county, leg broken by a fall of a horse-back.

November 11. R. A. Bowman, Crescent mine, Bellmont county, back injured by a fall of soap-stone.

November 12. George Taylor, Central Slope mine, Columbiana county, burned with gas.

November 14. Adam Harwick, Congo mine, Perry county, left foot and leg injured by a fall of coal.

November 14. Budd McCownha, Long Run No. 2 mine, Jefferson county, arm broken by being caught between mine cars.

November 14. Marvin Bush, Fairfield No. 2 mine, Columbiana county, hand injured while coupling mine cars.

#### MINOR ACCIDENTS.

#### 1895.

November 18. John Madison, New Shaft mine, Columbiana county, leg sprained by a fall of slate.

November 19. Wm. Redfern, Iron Point No. 1 mine, Perry county, shoulders bruised by a fall of coal.

November 20. George Gauntlett, Anderson mine, Stark county, shoulder and side bruised by a fall of slate.

November 22. David Wilson, New Crescent mine, Perry county, leg injured by a fall of draw slate.

November 24. Adam Uchler, New Crescent mine, Perry county, burned by a powder explosion.



November 24. Wm. Prindle, New Crescent mine, Perry county, burned by a powder explosion.

November 25. Mike Holla, No. 24 mine, Athens county, face slightly burned by gas igniting.

November 28. Alex Easton, Saratoga No. 2 mine, Columbiana county, face and hands burned with gas.

November 28. Robert Dodson, No. 8 mine, Perry county, injured by pulling down a standing shot.

November 29. Jess Washington, Belmont No. 2 mine, Belmont county, leg injured by mine cars.

November 29. Wm. Davis, Hutson No. 1 mine, Portage county, face injured by being kicked by a mule.

November 30. John Shaw, Briar Ridge No. 2 mine, Guernsey county, rib fractured by a fall of a false roof.

December 2. John Rothgib, Glen mine, Belmont county, leg cut by a fall of stone.

December 12. Emmett Davis, Belmont No. 2 mine, Belmont county, left arm injured by being kicked by a mule.

December 16. Davis Davis, Hutson No. 1 mine, Portage county, back and leg injured by a fall of slate.

December 17. Chas. Simons, No. 24 mine, Athens county, hip slightly injured by a fall of roof.

December 19. Hubert Gunyun, Wellston No. 1 mine, Jackson county, ankle sprained by stepping and slipping off of coal at face of his room.

December 20. John Verigan, No. 29 mine, Hocking county, foot injured by a mine car.

December 23. Marion Koon, Zanesville Coal Co's mine, Perry county, back injured and face cut by falling under a trip of empty mine cars.

December 30. John Cordal, Wheeling Creek No. 1 mine, Belmont county, foot injured by a fall of soap-stone.

December 31. John Delosk, Wheeling Creek No. 1 mine, Belmont county leg injured by mine car.

#### 1896.

January 4. Frank Molner, Long Run No. 1 mine, Jefferson county, burned about the face with powder.

January 4. Frank Kerilay, Long Run No. 1 mine, Jefferson county, burned about the face with powder.

January 7. John Harvot, Long Run No. 2 mine, Jefferson county, injured by a fall of slate.

January 20. W. J. Tague, Lower mine, Perry county, back injured by a fall of draw slate.

January 21. John Morris, Rend's No. 3 mine, Perry county, two fingers mashed while coupling mine cars.

January 24. J. W. Morgan, Tom Corwin No. 1 mine, Jackson county, leg injured by a fall of draw slate.

January 25. George McClelland, New Castle mine, Lawrence county, back injured by a fall of fire-clay.

January 28. Henry Holderman, No. 21 mine, Perry county, finger broken by being caught between coal, when trimming.

February 6. Malven Giesey, Quaker City mine, Belmont county, leg injured by being kicked by a mule.

February 14. Than Skelley, Akron No. 3 mine, Medina county, two toes broken by a fall of slate.

February 14. Austin Lewis, Hutson No. 1 mine, Portage county, temple cut by piece of slate from a blast.

February 15. Ike Winer, Black Diamond mine, Athens county, toe mashed by a fall of soap-stone.

February 20. Tom Lightholder, Rend's No. 3 mine, Perry county, foot bruised by a mine car running over it.

February 20. Harvey Rice, Price Bros. mine, Jackson county, back sprained and hip bruised by a fall of slate.

February 25. Patrick Cavanaugh, Milton No. 2 mine, Jackson county, leg hurt by a fall of slate.

February 26. Virgil Freeman, Jones Slope mine, Jackson county, two teeth knocked out by being kicked by a mule.

February 27: Robert Williams, Belmont No. 2 mine, Belmont county, back and shoulder bruised by a fall of stone.

February 28. Wm. Dow, Congo mine, Perry county, arm injured by a mining machine.

February 29. Jacob Rose, Fluhart No. 1 mine, Jackson county, side injured by a shot blowing through the rib.

March 2. Allen Brandenburgh, Minker Run mine, Athens county, injured by a premature discharge of powder.

March 2. Howard Brandenburgh, Minker Run mine, Athens county, injured by a premature discharge of powder.

March 3. James Day, Milton No. 2 mine, Jackson county, injured by falling from a water box.

March  $\theta$ . Jerry King, Clover Hill mine, Stark county, side injured by a fall of slate.

March 11. Dan Turrell, Charter Oak mine, Meigs county, shoulder injured by a fall of slate.

March 13. James Murray, Minglewood mine, Stark county, head and shoulder bruised by a fall of slate.

March 18. John Hollens, Wheeling Creek No. 1 mine, Belmont county, head slightly injured by a fall of soap-stone.

March 21. Frank Reed, Twin City mine, Tuscarawas county, hands, arms and face burned by an explosion of powder.

March 27. Charlie Strower, Tropic mine, Jackson county, hip dislocated by a fall of slate.

April 1. Charles Warren, Juniper No. 3 mine, Athens county, toes mashed by a mine car running over them.

April 13. George Selah, Long Run No. 2 mine, Jefferson county, foot mashed by a fall of slate.

April 19. John Sealto, Long Run No. 2 mine. Jefferson county, foot injured by a fall of slate.

April 24. Peter Marks, Wheeling Creek No. 1 mine, Belmont county, chest injured by a fall of soap-stone.

April 29. Wm. Turnbull, Schicks mine, Belmont county, injured by a fall of stone while drawing pillars.

May 4. Win Cox, Oak Hill mine, Jefferson county, arm bruised by a fall of slate.

May 4. Richard Hanson, Oak Hill mine, Jefferson county, finger knocked out of place and hand cut and bruised by a fall of slate.

May 21. Wm. Schultheiz, Briar Ridge No. 2 mine, Guernsey county, leg injured by slipping from a mine car.

May 21. James Craybon, Briar Ridge No. 2 mine, Guernsey county, ankle injured by a fall of slate.

June 1. Chas. Dixon, Huff's Run No. 1 mine, Carroll county, side and arms bruised by being caught between mine car and side.

June 2. Patrick Meagher, Tunnel Slope mine, Tuscarawas county, ankle sprained and cut by a fall of roof.

June 9. Steve Lease, Dillon No. 2 mine, Jefferson county, foot cut and bruised by a fall of stone.

June 10. Lew Walling, Wheeling Creek mine, Belmont county, foot injured by a mine car running over it.

June 14. Henry Ross, Shawnee Valley, Perry county, back injured by a fall of draw slate.

June 20. Alexander Williams, No. 24 mine, Athens county, both feet badly bruised by a standing shot rolling on him.

June 23. Tally Thomas, Elm Rock mine, Stark county, leg and body bruised by wheel of car breaking.

June 25. Frederick Weaver, Congo mine, Perry county, fingers bruised by coupling mine cars.

June 30. E. O. Dowd, Briar Ridge No. 2 mine, Guernsey county, big toe mashed by a fall of coal and slate.

July 6. Mage Wilson, Charter Oak mine, Meigs county, foot mashed by being caught between two cars which had jumped the track.

July 6. Ben Phillips, Charter Oak mine, Meigs county, leg injured by a fall of slate.

July 7. S. A. Neff, Zanesville Coal Co's. mine, Perry county, back injured by a fall of bone coal and slate.

July 8. S. C. Lewis, Zanesville Coal Co's. mine, Perry county, foot and ankle injured by a fall of slate.

July 15. Henry Collins, Congo mine, Perry county, wrist dislocated by falling down at the face of the room.

July 16. John Rodgers, Oak Hill mine, Jackson county, face and breast injured by a fall of fire clay.

July 18. John C. Allison, Second National mine, Columbiana county, knee injured by the tail chain breaking.

July 25. John Alexander, McPadyen mine, Jefferson county, foot bruised by a fall of slate.

July 29. Bill Searles, North Star mine, Athens county, foot injured by a fall of top coal.

August 18. Wm. Carnes, Wainwright mine, Jackson county, injured by a mine car jumping the track.

. August 21. George Wetzel, Hart mine, Perry county, hand mashed by mine cars.

August 24. Alex. Parick, Cherry Valley No. 3 mine, Columbiana county, face and hand burned by an explosion of powder.

August 24. Andrew Banik, No. 24 mine, Athens county, breast and hips injured by a fall of coal.

September 8. Dill Hatfield, Princess mine, Muskingum county, ankle injured by mine car.

September 17. C. C. Carter, Rawndale mine, Athens county, injured by being caught by a cage.

September 18. Pete Jeaunty, Millport No. 1 mine, Stark county, foot injured by a fall of coal.

September 18. George Eberhart, Millport No. 1 mine, Stark county, leg squeezed by mine cars jumping the track.

September 21. Hirl McCoy, Rawndale mine, Athens county, two toes mashed by pulling empty mine cars on the cage.

September 24. Wm. Cochran, Wellston No. 3 mine, Jackson county, neck and breast squeezed by being caught on top of a water box.

September 28. Frank Byollek, Dillon No. 2 mine, Jefferson county, head and face cut by a fall of stone.

September 29. Wm. Williams, Wheeling Creek No. 1 mine, Belmont county, foot injured by a fall of stone,

September 29. Peter Dlesk, Wheeling Creek No. 1 mine, Belmont county, foot injured by mine cars jumping the track.

October 8. Wade Savegs, Wade mine, Coshocton county, toe mashed by mine cars.

October 9. Wm. Wilson, Huston No. 2 mine, Portage county, injured by a pick-handle striking him in the groin.

October 9. Clinton Savage, Block mine, Perry county, foot mashed by a fall of rock.

October 15. Grant Sherrard, Walhounding mine, Guernsey county, ankle sprained by foot being caught under a mine car.

October 16. Robert Dunbar, Western Ohio No. 1 mine, Stark county, back injured by a fall of rock.

October 22. John Wingert, Paris mine, Stark county, leg injured by mine cars running off the track.

October 29. James Jones, No. 29 mine, Hocking county, knee injured by falling between loaded mine cars.

November 2. Henry Transin, Fox Lake No. 2 mine, Wayne county, back in jured by a fall of draw slate.

November 3. Thos. Gillis, Charter Oak mine, Meigs county, burned about the head with powder.

November 5. Chas. Weitzel, Glen mine, Belmont county. finger mashed by being run over by a mine car.

November 5. C. W. Lewis, Scott's No. 1 mine, Carroll county, head and back bruised by a fall of roof.

November 8. Walter McCarty, Laughlin mine, Tuscarawas county, hips injured by being squeezed between mine cars.

November 9. H. S. Willis, Captina mine, Belmont county, foot mashed by a fall of coal.

November 12. David R. Lewis, Central Slope mine, Columbiana county, burned with gas.

# ROBERT M. HASELTINE, Chief Inspector of Mines, Columbus, Ohio.

# DISTRICT INSPECTORS.

#### FIRST DISTRICT.

Composes the counties of Hocking, Vinton, Jackson and Scioto.

Samuel Llewellyn, Inspector. Coalton, Jackson county, Ohio.

#### SECOND DISTRICT.

Composes the counties of Athens, Washington, Meigs, Gallia and Lawrence.

ALEXANDER BEATTIE, Inspector.
Nelsonville, Athens county, Ohio

#### THIRD DISTRICT.

Composes the counties of Perry, Muskingum, Morgan and Noble.

ROBERT H. MILLER, Inspector. Shawnee, Perry county, Ohio

#### FOURTH DISTRICT.

Composes the counties of Holmes, Coshocton, Guernsey, Belmont and Monroe.

THOMAS McGough, Inspector.

Bridgeport, Belmont county, Ohio.

# FIFTH DISTRICT.

Composes the counties of Harrison, Jefferson, Carroll and the southern half of Columbians.

THOS. H. LOVE, Inspector. Leesville, Carroll county, Ohio.

# INSPECTOR OF MINES.

# SIXTH DISTRICT.

Composes the counties of Wayne, Stark and Tuscarawas.

JOHN P. JONES, Inspector. North Lawrence, Stark county, Ohio.

# SEVENTH DISTRICT.

Composes the counties of Medina, Summit, Portage, Trumbull, Mahoning and the northern half of Columbiana.

REES T. DAVIS, Inspector.
East Palestine, Columbiana county, Ohio.

# Mines Visited by the Chief Inspector During the Year.

#### JOHNSTONS.

On October 11th, 1895, Thomas H. Love, Inspector of the Fifth District appeared before the grand jury of Jefferson county and made complaint as to the manner in which Johnston's mine in Island Creek township, was being conducted. Whereupon they returned an indictment against Thomas Johnston, the owner of the land, and William Ward, who managed the mine for him.

I visited the mine on November 22d, in company with inspectors Love, Mc-Gough and Miller, for the purpose of preparing the case for presentation to the court at its coming term. The opening of the mine was made well up on the south hill side above Island Creek. The main entry was driven on the south-east face of the coal. About 375 feet of this was standing, a squeeze having closed the remainder of the entry. 200 feet from the opening an entry had been driven west a distance of sixty feet; from this, one room forty in length had been turned to the left and two rooms had been opened on the right. These were only advanced about fifteen feet when they went through into some old works. Through one of these rooms a small volume of air was passing to an old opening in the face of the hill which had been hastily cleaned out after the action of the grand jury. On the main entry and before reaching this butt entry there was a space of fifty feet where the roof was held up with timber that was in an advanced state of decay. There was strong evidence that the whole front of the hill on the right of the opening had at some time been mined over and allowed to fall in and crush the pillars. At a point on the main entry 105 feet ahead of the west entry parting, a second west entry had been turned; from this a face entry was driven a distance of thirty-three feet. It had then been turned in a south-easterly course about seventy-five feet; from this entry three rooms had been turned to the east, the shortest one of which was 160 feet in length. It was from this portion of the mine that the supply of coal was being mined. When it is considered that no means had been provided whereby a current of air could be established in any portion of the mine, and further that there were no possible means to establish even by the laws of nature a circuit above the first butt lentry; also that the only means of escape was by the main entry, the mouth and fifty feet of which was but poorly supported by timber, it is plain that to further operate this mine would imperil the lives of those who found employment therein. The cases after being continued at the winter term were called up in May, whereupon the court decided that they came within the ruling of Attorney-General J. K. Richards in the W. P. Hanna matter, a case of Harrison county, and the cases were dismissed.

Below will be found the W. P. Hanna case referred to.

OFFICE OF CHIEF INSPECTOR OF MINES,
STATE OF OHIO,
COLUMBUS, OHIO, October 21, 1895.

HON. J. K. RICHARDS, Attorney-General, COLUMBUS, OHIO.

DEAR SIR: Mr. W. P. Hsnna at Folk's Station, this state, who operates amine employing two or three men, has been notified by the District Mine Inspector to place his mine in a lawful condition by sinking an air shaft, etc. He writes the department to know if he and the person who has the mine leased can dig what coal they want for their own use without first making the improvements that were ordered by the District Inspector of Mines. I would like your opinion as to whether or not the owner or lessee of a mine can mine his or their own coal in his or their own mine while it is in an unsafe or unlawful condition, in defiance of the mining law of Ohio.?

An early reply will greatly oblige,

Yours truly,

R. M. HASELTINE, Chief Inspector of Mines.

Office of the Attorney-General,
State of Ohio,

COLUMBUS, OHIO, November 8, 1895.

HON. R. M. HASELTINE, Chief Inspector of Mines.

DEAR SIR: I question whether the mining laws of the state were intended to and do reach the case of an owner of a mine who individually and personally digs coal in it for his own use, without the assistance of any other person; but such owner cannot, in my opinion, by any contract or agreement, employ or permit any person other than himself to dig coal in such mine, without first complying with the mining laws of the state and placing the mine in a safe and properly ventilated condition as required by statute.

Very respectfully,

J. K. RICHARDS, Attorney-General.

#### FARMERS OR CENTRAL.

The Central mine is located near Byesville in Jackson Township in Guernsey county, and is operated by the Cambridge Fuel Co.

In conducting this mine, the law had been repeatedly violated in several important particulars. District Inspector McGough had time and again given the management official notice of these violations. His orders continued to be ignored and the requirements of the law defied. On December 6th, I met Mr. McGough at Cambridge when a warrant was issued for the arrest of Walter Smith, the mine boss. The case was set for hearing on the 10th. When it came up Mr. David Oakey appeared for the defendant and asked for a continuance until December 19th. On the 18th the mine was inspected in company with District Inspectors R. H. Miller and Alex. Beattie.

The mine is ventilated by a fan which is located at the bottom of an air shaft. It is driven by steam power from a boiler that is sitting close by which also furnishes power for the mine pumps. A large amount of loose stone and slate was hanging over the boiler; this was ordered removed. It was found that the fan could produce from 13,000 to 19,000 feet of air per minute, which was ample if properly distributed. Complaint was made that the miners were permitted to travel on the hauling entry over which the trains are drawn at great speed by means of a tail rope. A notice was posted at each end of the entry warning them of the danger.

It was found that on entries No. 76 and 77 the break-throughs had been made from eighty-five to ninety feet apart. It was here that Inspector McGough on December 3rd found men working ahead of air ninety-nine and one hundred and four feet respectively. In room 22 on entry 76 it was 102 feet to a break-through; room 24, 110 to a break-through; room 28, eighty-seven feet and no break-through; room 30 was in 101 feet with no break-through; room 31, ninety-six feet, no break-through. On entry No. 80, room No. 10 was in 115 feet with no break-through, and room No. 14, 112 feet with no break-through. The trial was continued until February 1st, when it was heard before Esquire Turner who bound Mr. Smith over to Court. On February 7th the witnesses appeared before the Grand Jury who found an indictment against both Walter Smith and the Cambridge Fuel Co. The trial came up in the Common Pleas Court on May 18th. The Jury found the Fuel Co. guilty and acquitted Walter Smith. The defense contended that a corporation could not be indicted for a crime where the penalty was imprisonment. The case is still pending in the higher court.

#### OLD SLOPE.

The Old Slope mine at Salineville is the property of the Ohio and Pennsylvania Coal Co. It is under the supervision of Mr. James Black. John Whalen is the mine boss. At the time of my visit 145 miners and fourteen inside day hands were employed. At the foot of the slope 7,900 feet of air were entering. At station 10 of the survey it increased to 11,070; at station 16 it decreased to 10,900 feet. Before the fan, which is located some distance in the mine, 28,800 feet were passing. Above the fan the anemometer showed 34,000 feet. At the face of Shubert entry, and at the face of Maher entry, there was a current of 12,600 feet. At Bryan entry, 7,500; at Anderson, 13,700; at the foot of the slope it decreased to 12,900. It was found that when the fan was stopped 7,100 feet passed up the slope, the difference in temperature being thirty-four degrees. The efficiency of the fan is thus indicated as equal to 5,800 feet. The examination demonstrated that the fan was forming an eddy by way of the old works, also that the current was being allowed to escape into the mines that were adjoining to such an extent as to make it manifest that the volume was not sufficient for the number of men employed. Arrangements were then made to clear out an abandoned air course and start an additional fan. The miners went on a strike March 9th and remained out until November 2nd. During this time the condition of the mine was much improved.

#### GLENWOOD SHAFT.

This mine is located on the line of the Cleveland and Marietta R. R., in Buffalo Township, Noble county. It was abandoned during 1891 and but a short time prior to my visit on May 12th, had been reopened by Mr. J. J. Phillips of Cleveland, who placed Butler W. McMillen in charge as mine boss. When the mine was in operation nineteen miners, one inside and three outside day men, were employed. On May 12th, in company with District Inspector Miller, I investigated the cause of the death of Butler W. McMillen who was burned by fire damp (C. H.4) on May the 10th, and died on the 11th. An examination developed that it was a shaft mine with but one opening, one end of which was partitioned off for an up-cast. At the bottom of this, the exhaust from a small steam pump produced the ventilation. It was learned that on May 9th the boiler had been blown out for the purpose of having it cleaned. It was refilled and fired, and upon the afternoon of the 10th, Mr. McMillen, with an open lamp on his head went down to start the pump. At the inquest the engineer testified that in about three minutes after the pumps started there was an explosion in the mine which shook the hoisting tower. In about

three minutes more Mr. McMillen rapped to be hoisted. He walked about until a carriage was secured, when he rode home. He died the next morning. Upon an examination of the mine it was found that the partition was in bad condition, there being several large holes in it and the cracks were but poorly battoned. At the bottom of the shaft the up-cast current registered but 1,300 feet per minute, a large part of which came from under and around the door, which stood between the two entries. This made it evident that there was little or no current in the interior of the mine, and that fire damp had no doubt been accumulating since the 10th; also that the after damp had not been removed, hence it was not safe to examine the works until the air-current was greatly increased. One of the chieve ' wheels was found to be out of line to such a degree as to cause danger of the rope leaving it at each revolution. There was also danger of its falling at any minute which rendered it unsafe to repair the partition until replaced with a new wheel. I directed that this be done at once, and such repairs made as were necessary to secure a current of at least 6,000 feet per minute. Mr. Miller was directed to return on the 15th and see that all was in good order before the mine was permitted to resume operations. While examining the mine on the 15th, Mr. McMillen's lamp was found at the parting of the inside room of the entry on which the air returned. This would indicate that after starting the pump, he entered the mine by the return air way and met the accumulation of gases as they were being removed as the current of air began to circulate. His motive for thus thoughtlessly rushing into the mine will never be known. It is evident that had he been familiar with the subject of ventilation and the properties of the several gases met in mining, he would not have descended with an open light, much less have entered the mine with it, and certainly not by the return air-way. This is the fourth fatality resulting from an explosion of light carbureted hydrogen gas during the past nine years, and its . occurrence is greatly to be regretted.

#### BLUE ROCK.

The Blue Rock mine, owned by a company of that name, is located at Stone Station, on the Zanesville and Ohio River Railroad, in Harrison township, Muskingum county. In company with District Inspector, R. H. Miller, it was inspected on May 16th. The mine was found idle with the exception that Mr. Souders and three miners were engaged in an effort to drive into an undeveloped swamp of coal supposed to lie on the left of the old mine. In this they had been engaged for some months. A hasty survey developed that they were skirting along the edge of the old basin. This discovery was a great disappointment not only to the company but to the department as it necessitated a change in the proposed plans for improving the ventilation. For present relief it was decided in case a new swamp of coal was found, that before the mine should resume operations, the roof in the dark entry must be shot down where it crosses over a swale and the entry cleaned out back to the furnace. It was thought that in case the new entry developed a fine field of coal, that it would be best to convert a portion of the former main entry and all of the furnace entry into a return air course which will reduce the friction to a point that will enable the furnace, though small, to furnish a sufficient volume of air.

#### DILLON NO. 2

Is located in Mount Pleasant township in Jefferson county. It is owned by the Wheeling, Lake Erie and Pittsburgh Coal Co. Mr. M. E. Serat is the general manager, Mr. J. J. Roby, superintendent, and Mr. Wilford Sowden is mine boss. The miners, in an effort to secure a check-weighman had succeeded in electing one, to which a large number objected. On this account, and perhaps for other reasons, the management had denied him the right to enter upon the duties of his position.



The Mine Committee appealed to the department to enforce section 305. On mwarrival, May 17th, I found that the miners had held a meeting on the evening previous and selected a person to act for them who was acceptable to all. He entered upon his duties that morning, thus ending the disagreement.

#### NO. 6, OR BRIAR RIDGE

Is located at Glouster in Athens county. It is the property of Colonel W. P. Rend of Chicago. Mr. David S. Williams has charge of the mine as superintendent, and Mr. Daniel McBryde as mine boss. When in operation 190 men were employed. At the time of my visit on July 29th, it was found that a few days previous, the creek had overflown its banks, and through a surface break near the railroad track in front of the shutes had flooded the north side of the mine. The opening thus made developed the fact that there was but little solid covering over the coal at that point, and from the fact that other breaks have occurred along the creek bottom, it is believed that little or no solid roof exists in the Valley. By an examination of the mine it was found that a pair of butt entries had paralleled the creek for some distance, and that in many instances the rooms had been driven full width under the bed of the creek. If the entry and room pillars under the Valley had been left of greater size than in other portions of the mine, it was not observed, To avoid further breaks under the creek, it was thought advisable to secure the roof in all exposed rooms by the erection of shanties, built of strong timber and stone. This course was deemed as more expedient than to construct dams or bulkheads, As an immediate precaution, directions were given to provide a watchman, whose duty it will be to examine the Valley and detect the first appearance of any new breaks. Also to give timely warning in case of high water. When deemed to be dangerous, the men are to be taken out of the mine. It was learned that some distance in advance of the last pair of left butt entries a shaft had been sunk for the purpose of testing the coal. The management promised to drive these on with all speed and make the connections so that if water should break in suddenly or any unforseen exigency arise, it would provide a ready means of escape.

#### OAK DALE.

This mine is located near Glouster in Athens county, and is owned by the North Star Coal Co. Mr. A. D. Bates is superintendent, and Freemont Brannon the mine boss. This mine caught fire on Sunday, August 23d, from a barrel of crude petroleum which had been taken into the mine as a place of convenient access for the machine runners who used the oil on their mining machines. It is said that the barrel was placed on end near the partition separating the stable from the main entry. When the head of the barrel was knocked in, the gas thus liberated, ignited from an open lamp, causing the oil to explode, setting fire to the stable, from which it communicated to the shaft, and in a few minutes, the interior of the shaft and hoisting tower were on fire. Fortunately but a few men were in the mine at the time, all of whom escaped by way of the air shaft. During the day following, all effort to control the fire was abandoned, and the mine was sealed up for the purpose of smothering it out. In this condition it remained until September 15th, when the air shaft was opened and an examination was made. The descent was made in a sinker's tub which was lowered by means of a windlass, one person descending at a time. The hemp rope used was new and as the bucket descended it unwound, which kept the bucket constantly turning. This, with the several pieces of timber which projected from the sides of the shaft around which the occupant had to steer the bucket, made the ascent and descent quite perilous. Some eight or ten men were thus lowered. As rapidly as possible the air current was confined to as straight a course as possible toward the hoisting shaft, thus preventing a current



from bringing a body of fire damp (C. H. 4) from the interior of the mine, and causing an explosion. The day and night was spent at this work, when by way of the dark entry and through the stable the fall at the bottom of the shaft was reached without locating the seat of the fire, which rekindled upon opening the shafts. The quantity of smoke had so increased by the next morning, that the management thought it best to again seal the mine and allow the fire to smother. Had the work thus begun been followed up, it is believed that the fire would have been located and much valuable time would have been saved,

#### HARTFORD.

The Hartford mine is located in Valley township, Guernsey county. It is owned by James W. Ellsworth & Co., of Cleveland. Mr. John Simpson acts as superintendent and James Moss is mine boss. It was inspected October 7th, for the purpose of examining the place where John Matheny was found dead. pany had recently installed and equipped the mine with a General Electric Three Phase Mining Plant. The deceased was a miner, and while waiting for an empty car, went to the room of Isaac Unklesby. On his way returning, and while in conversation with Unklesby as to the condition of some loose slate on the entry, suddenly gave a moan. Mr. Unklesby went hurriedly to him a distance of about fortyone feet and found him in contact with the electric wire attached to the side of the entry. He was at once drawn away but was dead. As this was the first instance where a fatality had occurred in the mines of the state that could either directly or indirectly be attributable to the use of electricity, it was thought to be of the utmost importance that there should be a thorough investigation. With this in view, the services of Dr. A. M. Bleile, Prof. in Physiology at the Ohio State University, were secured to hold the autopsy. With the assistance of a number of local physicians the post-mortem was held on the 8th, which developed the fact that the deceased had a diseased heart, and the Coroner so found. On the examination of the mine it was seen that the wire along the entries projected from three inches to a foot from the entry rib, thus unnecessarily exposing the employes to contact with them-Many were timid about returning to work while they remained thus exposed. The department also deemed it a peril and directed that they be set in a trench cut in the entry rib of such depth as to clear the rib at least one inch. The management agreed to trench one entry each night until all were completed, and the mine resumed work on the 13th.

# Mines Visited by the District Inspectors, 1896.

Samuel Llewellyn	1 <sub>o</sub> +	District
ALEXANDER BEATTIE	2d 1	District.
R. H. MILLER	3d 1	District.
THOMAS McGough	4th	District.
THOS. H. LOVE	5th	District.
John P. Jones	6th	District.
RHRS T DAVIS		

# REPORT OF SAMUEL LLEWELLYN,

INSPECTOR OF THE FIRST DISTRICT, FROM NOVEMBER 15, 1895, TO NOVEMBER 15, 1896.

HON. R. M. HASELTINE, Chief Inspector of Mines.

DHAR SIR:—I have the honor to submit to you a report of the mines of the First District for the year ending November 15, 1896.

During the year my associations with both the miners and the operators have been most pleasant. I have received courteous treatment from all, and with but few exceptions, there has been a readiness not only to comply with the law, but a desire to make conditions as easy and pleasant as possible to all concerned. I desire to thank miners and mine officials for their evident accord with the aims and purposes of the Department, and for their kindly reception of its officer.

The improvements, etc., are noted in the general tables.

The business depression has been keenly felt by every department of the mining industry, and the economy which it has been necessary for the operators to exercise has been such that all earnestly wish that they may not be called upon to experience it again.

There have been no new developments of note in this field; enterprises of this character are waiting for the increased demand that we hope is coming. I realize my indebtedness to you for counsel, suggestions and support during the crisis of this year, and I desire to express my gratitude for your kindness.

Trusting that our future relations will be as pleasant and profitable as they have been in the past, I am, respectfully yours,

Coalton, Ohio, November 15, 1896.

SAMURL LLEWELLYN,
Inspector First District.

# HOCKING COUNTY.

# LOST RUN

Is located on the Monday branch of the C., H. V. & T. R. R., and is operated by the Lost Run Coal Co. Joseph Slater is the superintendent and Edward Butts, the mine boss. It is a drift with three openings, made into the No. 6 seam of coal which is here from six to ten feet in thickness. It is worked on the double entry

system and is ventilated by a fan. Two hundred and two miners and forty-five day hands are employed in this mine. The mine was generally found in good condition. A change of the belt on the fan apparatus effected much improvement in the ventilation by increasing the volume and regularity of the air current.

# SNAKE HOLLOW

Is situated on the Monday branch of the C., H. V. & T. R. R, and is operated by C. L. Poston & Co. C. Mellinger is the superintendent and mine boss. It is a drift with two openings made into the No. 6 seam of coal which is here six to eight feet in thickness. The work is carried on by the double entry system and the mine is ventilated by two fans. 162 miners and twenty-five day hands were employed. The mine was always found in very fair condition. During the year a large fan operated with steam has been substituted for the electric fan in the north opening. This gives a large reserve of ventilating power.

#### NO. 29

Is located at Murray City, on the Snow Fork Branch of the C., H. V. & T. R. R., and is operated by the Greendale Furnace Co. J. W. Miskell is the superintendent and mine bo s. This is a slope, worked on the double entry system and is ventilated by a fan operated by an electric moter inside the mine. It is in the No. 6 seam of coal which here varies from six to nine feet in thickness. 172 miners and thirty-nine day men are employed.

# C. & H. C. & I. CO. NO. 15

Is located at Sand Run, on the Monday branch of the C., H. V. & T. R. R., and is operated by the Jacoby Coal Co. George Jacoby is the superintendent and mine boss. It is a drift mine with an opening into No. 19 at Longstreths. It is worked on the double entry system and is ventilated by the stack of the compressor at No. 19. The coal is that of the No. 6 seam which varies here from six to eight feet in thickness. Thirty-two miners and seven day men are employed. The mine is fairly ventilated and cared for. Some of the brattices on main entry were ordered repaired to keep the current intact.

# NO. 19 SOUTH

Is located at Longstreth, on the Monday branch of the C., H. V. & T. R. R., and is operated by the C. & H. C. & I. Co. It has been suspended for some years, during which the south-eastern part of the mine has been on fire. Several attempts have been made to extinguish the fire but with small success. During the year a new drift opening has been made from the west into the north entry which is ventilated by a fan set over the mouth. They propose to open up an east entry north of the burning coal and to draw the entry p llars on the north entry, thus surrounding the fire with vacancy and cutting off its supply of fuel. It may thus be possible to thoroughly flood the mine and to extinguish the destroying element. Twenty-five day men are employed under the superintendency of Mr. Ridenour. Jacob Littler acts as mine boss.

### morris no. 1

Is located at Sand Run, on the Monday Branch of the C., H. V. & T. R. R., and is operated by the Morris Coal Co. Until September 1st, John S. Doe was superintendent, but since John Simpson has been in charge. Up to July 1st, John McMillen was mine boss, but since that time Andrew Steverson has held that position. It is a drift mine working on the double entry system and is ventilated by an electric fan

in the mine. The seam is No. 6 which here is from six to eight feet in thickness. Two hundred and thirty-eight miners and sixty-three day hands are employed. On December 31st, I found the fan idle more than half the time because of the defective motor. I learned that it had been so for more than a week, and as there were no signs of a continuous operation of the fan, I called the men out. The mine remained idle for four months. Meantime an air-shaft was sunk near the head of the first north entry, and soon after the mine resumed operations. In June, the fan was made an exhaust on the sixth east entry. The result was a deficiency in the ventilation of the mine, because the fan was fed from the abandoned workings to the southward. Finally the fan was moved to the north entry near the air-shaft, where much better results were obtained. During the suspension a creep came over the mine, cutting off the pillars in three or four entries between the two north entries.

#### MORRIS NO. II

Is located at Jobs, on the Brush Fork branch of the C., H. V. & T. R. R., and is operated by the Morris Coal Co. John S. Doe has been succeeded during the year by John Simpson as superintendent. Edward Fluke is mine boss. It is a drift mine worked on the double entry system. It is ventilated by two fans, one on the northeast and one on the southern portion of the mine. The opening is in seam No. 6, which here is from six to eight feet in thickness. 250 miners and seventy day hands are employed. During the summer these mines were suspended for months for trade reasons. The mine is fairly ventilated. At my last visit, because of a circuitous route, some entries were deficient in ventilation. Since then the route has been shortened with good results.

# MORRIS NO. III

Is located on the opposite side of the valley from No. 2 and the coal is brought to the same hopper. It is under the same management, has the same mine boss, and is identical with No. 2 in its characteristics. It is ventilated by one fan in the mine. 284 miners and seventy-three day hands are employed. The volume of ventilation is fair, but there are too many men for one current, as the last three or four entries on the west side are continually full of foul vapors. Although the vapors are in rapid motion, their effects are deleterious. Otherwise the mine is kept in good trim. A trolly and a motor are in use to haul the coal to the rope switch from a 1000 ft, up the 10th east and 800 ft. up the main north entries. It is successful in its operation.

# NEW PITTSBURG NO. VII

Is located near the terminous of the Brusk Fork branch of the C., H. V. & T. R. R. and is operated by the New Pittsburg Coal Co. R. S. Weitzel was superintendent, and John Hallam, succeeded by Wm Slater, mine boss. All these new Pittsburg mines are drifts worked on the double entry system and are ventilated by fans. They penetrate seam No. 6, which here is from six to eight feet in thickness. One-hundred and forty-three miners and twenty-eight day hands are employed. The six and eight south entries and a few pillars on the north side were the only places where the coal was worked in this mine until May, when Mr. Slater became mine boss. At that time the northwest entries were deficient in ventilation, because the various breaks and openings were not properly closed and doored. Seemingly vigorous attempts were made to remedy these defects. On my next visit the work was ordered gone over again. There is a great loss of air between the fan and the eighth south entry. The area had been cleaned and brattices to some extent closed. At this writing better directed efforts are being made which will result in an abun-

dance of ventilation in the remotest entry. Many rooms are dripping and water is present to annoy the miner. It is drained by pipes leading from several pumps. The scales were tested and found incorrect on June 25th. They were corrected.

# NEW PITTSBURG NO. VIII

Is located on the east side of the Valley, at the terminus of the Brush Fork branch of the C., H. V. & T. R. R., and is operated by the New Pittsburg Coal Company R. S. Weitzel is the superintendent and James Johnson the mine boss. It is worked on the same system and in the same seam as No. 7, and is working in addition to its own territory proper, the pillars in the northernmost entries of No. 6 opening, said opening having been abandoned. The No. 6 fan, however, is still in operation. In January the pillars on the west side were being drawn, causing heavy falls in some cases to the surface, thus affording an outlet for the air before coursing through the mine. The attempts made to close the crevices from the outside were not wholly successful. Now they are thoroughly closed on fan entry.

# NEW PITTSBURG NO. IX

Is located north of No. 7, No. 9's south entry connecting with No. 7. It is operated by the same firm and is in the same seam. It is worked on the same system and has the same superintendent. Wm. Embleton is mine boss. One-hundred and thirty-five miners and twenty-six day hands were employed. The south entry door was required to be open so frequently as to seriously obstruct the course of the current. The management was ordered to door the east entries to keep the current intact. The order has been complied with. The current to the north entries was lost to a great extent through defective brattices. Work has been done to correct this fault. The scales were tested on June 25th and were found correct. The box car scales were found incorrect.

# CONSOLIDATED

Has been suspended during the year.

# COALGATE

Is located at the terminus of the Snowfork branch of the C., H. V. & T. R. R. and is operated by the Somers Coal Co. Seth Williams is the superintendent and Watkin Lewis is mine boss. It is a drift, worked on the double entry system and is ventilated by a fan. It is in seam No. 6, which at this point is from eight to ten feet in thickness. Early in the year, ninety-five miners and twenty-four day hands were employed. A motor was procured to operate the fan, since that time the ventilation has been good. The mine is kept in fair condition.

# CAWTHORN

Is located on the Monday branch of the C., H. V. & T. R. R. and is operated by the Stalter Coal Co. Robert Stalter is superintendent and John Murphy mine boss. It is composed of two drift mines, one on each side of a small valley. The west side has heretofore been worked on the single entry system, but further work will be done on the double entry plan. The west side is ventilated by a furnace, a new one having been built during the year to replace an insufficient one. The east side was ventilated by natural pressure until late in the year when a fan opererated by electricity was placed in position. It is in the No. 6 seam, which varies from six to eight feet in thickness at this point. An electric plant and coal cutting machinery have been put in this year. The mine is in fair condition.

# EAST HILL

Is located near Buchtel, on the Snowfork branch of the C., H. V. & T. R. R. and is operated by Beattie Bros. & Co. James Beattie is superintendent and mine boss. It is an opening into an old mine and the work at present is on some large entry pillars. The ventilation was natural pressure. As it was sluggish I ordered them to place a basket in the air-shaft and a fire kept in it. It is in the No. 6 seam which here is six feet in thickness. Seventeen miners and three day hands are employed.

#### BLACK DIAMOND

Is located near Haydenville and is operated by the Haydenville Mining and Manufacturing Co., John W. Jones being superintendent and E. Lehman mine boss. It is a drift mine worked on the single entry system and is ventilated by a furnace together with natural pressure. It is in the No. 6 seam, which varies from four to five feet at this point. Eighteen miners and seven day hands are employed. The mine is in fair condition.

#### KITTANNING

Is located near Starr Station, on the C.. H. V. & T. R. R. and is operated by the Kittauning Coal Co. Henry Collins is the superintendent and J. W. Nail is the mine boss. It is a drift, worked on the double entry system and is ventilated by a furnace. It is the No. 6 seam which here is between four and five feet in thickness. Thirty-two miners and seven day hands are employed. A few men are drawing pillars in the old mine. A new opening has been made farther north. The condition of the mine is good.

# MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of men.	Postoffice address.
Kistler's			7	Longstreth
Evans	********	William Evans	1	Carbon Hill
Beech Grove			1	Sand Run
Cox	*******	L. D. Cox	1	Nelsonville
Lama		J. W. Lama	3	
Buckeye	**	Washingt'n Coakly	1	66
		CLAY MINES.		
Cotton Allen	Drift	Haydenville M. &		1
		М. Со	6	Havdenville
Union Furnace	"	Columbus Brick &	-	,
		Terra Cotta Co	9	Union Furnace

# VINTON COUNTY.

OHIO.

NEBRASKA.

ORETON.

The above mines were suspended during the year.

# ELKO

Is located at Vinton station, on the B. & O. S. W. R. R. and is operated by the Elko Coal Co. George Scheuler is the superintendent and Wm. Rankin the mine boss. It is a shaft worked on the single entry plan and is ventilated by a fan. The seam is said to be No. 2, with an average thickness of thirty to thirty four inches Sixty-four miners and twenty-five day hands were employed. The carrent was sluggish because of long route, part of it behind a board brattice. During the year an entry was driven through a rock fault east, to connect with the south entry. The fault was 600 feet in length, and seems to extend farther. The ventilation is improved. The number of men employed in this mine is much decreased. At the close of the year a number of test-holes were being sunk to the eastward to ascertain the condition of the seam before pushing the entries. The first part of the year the mine was in charge of D. J. Harry.

# MINERTON OR RACCOON

Is located at Minerton, on the C., H. V. & T. R. R. and is operated by J. L. Lawler, who acts as superintendent. George Kavanaugh is the mine boss. It is a drift worked on the double entry system and is ventilated by a furnace. It is in seam No. 4 which is here four feet, eight inches in thickness. Thirty-two miners and eight day hands were employed. A new mine has been opened on the north side of the valley. The mine is drained by a ditch on the main entry. A few men are employed drawing pillars in the old mine. The condition of the mine is fair.

# HANGING ROCK

Is located on an extension of the O. S. R. R, nine miles east of Wellston and was operated by the Hanging Rock Coal Co. A. F. Bunker was superintendent and Victor Sullivan mine boss. It is a shaft fifty feet deep, worked on the double entry system and is ventilated by a fan. It is in the No. 4 seam which has a thickness of four feet, two inches here. Twenty-five miners and six day hands were employed. The mine was in good condition. The scales were tested November 18th and were found weighing correctly. Soon after, the mine suspended operations and has as yet not resumed.

# HEASLEY'S

Is located at Zaleski, on the B. & O. S, W. R. R. and is operated by Hezekiah Heasly, who has sole charge. It is a small wagon mine worked on the cut-off plan and is ventilated by a furnace. It is in the No. 4 seam which here is about three and one-half feet in thickness. Nine miners and three day hands were employed. The air was found sluggish owing to several openings along the intake. The management was required to close them. When this is done I think the ventilation will be good.

# MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Owner or operator.	Number of men.	Postoffice address.
Star No. 2  Dewalts  Winters  Robinett.  Bobo  Mill  Iughams  Hawks	46 46 46 46	Edwards & Co J. S. Dewait E. T. Winters W. H. H. Robinett J. T. Bobo Gillman & Gold C. T' Beveridge Oscar Hawk	3 2 3 5 6	Hawks Minerton McArthur  "  Mineral City Hawks

# JACKSON COUNTY.

#### ATNA.

This shaft is in the No. 4 seam. It was suspended during the year.

# IRON VALLEY

Is located on the O. S. R. R. extension, east of Wellston and was operated by the Iron Valley Coal Co. since changed to the Valley Coal Co. J. A. Ede and L. Brown were superintendents successively and T. B. Patrick is mine boss. It is a drift mine with several openings converging to the same tipple and is worked on the double entry system. The ventilation is produced by a furnace. It is in the No. 4 seam which is four feet, four inches in thickness here. Forty-three miners and twelve day hands are employed. It is fairly ventilated and is in good condition. November 18th the scales were tested and found correct.

#### RIVERTON

Is located at the terminus of the Buckeye branch of the C., H. V. & T. R. R., east of Wellston and is operated by the Wainwright Coal Co. George Harrison is the superintendent and Sheridan West the mine boss. It consists of two drifts worked on the double entry system and is ventilated by a furnace. They are in No. 4 and 5 seams. No. 4 being four feet, two inches, and No. 5, four feet in thickness. Thirty-three miners and seven da, hands were employed. Early in the year the pillars in No. 4 seam were drawn and the mine abandoned. January 16th the scales were tested and found to work very sluggishly. The management was ordered to correct them. On June 29th the miners were fearful of the main entry's falling in. On examination, I failed to find any imminent danger, but ordered the supports strengthened, and there has been no further fear. A second opening was ordered made. The furnace and air shaft were ordered enlarged as they were not thoroughly efficient.

# WAINWRIGHT

Is located three miles east of Wellston, on the C., H. & D. R. R. and is operated by the Wainwright Coal Co. George Harrison is the superintendent and J. J. Price and James Carter mine bosses successively. It is a shaft ninety-five feet deep worked on the double entry system and ventilated by a fan. It is in the No. 2 seam which here varies from two feet and less to four feet in thickness. Sixty-six miners and twenty-nine day hands were employed. Fire damp is present here in small quantities. On December 13th, jointly with the superintendent I had a notice posted, forbidding the practice of firing the gas, which was in vogue at that time. In February a difficulty arose respecting entry driving, which resulted in the mine being idle until April 18th when a settlement was effected. Several times during the year brattices and doors were ordered repaired. Toward the closing months a better state of things prevailed, breakthroughs in the rear were closed and the water was better drained. Preparation was being made to reverse the air current, making the slope the upcast and the air shaft the inlet. This it is thought will perfect conditions.

# FLUHART NO. 1

Is located in South Wellston, on the B. & O S. W. and C., H. V. & T. Ry's, and is operated by the Fluhart Coal Co. Theo. J. Fluhart is superintendent and Thomas Stiff and David Powell successively were mine bosses. It is a shaft eighty feet deep, is worked on the double entry system and is ventilated by a fan. It penetrates the No. 2 seam which here is from three to four feet in thickness. 148

miners and forty-six day hands are employed. The ventilation was found sluggish on west and northwest entries, occasioned by breaks in the airway. On my last visit in October, a serious fall was found on the sixth west airway. These evils were ordered remedied. A trapper was ordered on the door at the north turnoff and a door ordered on the eleventh. The south side of the mine is very wet and at times during rainy seasons the east entries were flooded. Better means of drainage are badly needed. The brattices on the south entry were ordered overhauled.

# FLUHART NO. 2

Is located a mile southeast of No. 1, on the C., H. & D. R. R. and is operated by the Fluhart Coal Co. Thos. J. Fluhart is the superintendent and Hall Melvin the mine boss. It is a shaft 167 feet deep, is worked on the double entry system and is ventilated by a fan. It is in the No. 2 seam varying in thickness from three to three and one-half feet. Ninety miners and forty-two day hands are employed. During the year the ventilation on the east side was found sluggish, caused by the passageway from the fan to the southeast entry being somewhat choked. The passage-way was ordered cleaned. Curtains were being used instead of doors in various places but doors were to be erected. During the summer the work scarcely averaged one day a week.

# FLUHART NO. 3

Is located on the B. & O. S. W. R. R. and is operated by the Fluhart Coal Co. Theo. J. Fluhart is the superintendent, and Edward Littlejohn, who, during the year succeeded Thos. Stiff, is mine boss. It is a shaft eighty feet in depth, is worked on the double entry system and is ventilated by a fan. It is in seam No. 2 and varies in thickness at this point from two to four feet. Forty miners and twenty day hands were employed. But very little work has been done here during the year. When visited October 23d the air was found sluggish, owing to the route from the fan to the workings being circuitous, and the brattices very leaky. Fire damp is present in small quantities. They were ordered to keep the brattices nearer the faces of entry where damp was present. At 2 a. M., December 17th, Jacob Sprouse, who was working south entry on a night shift, was badly burned with powder. In cleaning his blasting barrel with a squib, it flew back and entered a keg of powder nearby, igniting it. He was so severely burned that he died January 9th, 1896.

# MILTON NO. 1

Is located at Wellston, on the B. & O. S. W. R. R., and is operated by the Milton Coal Co. T. J. Morgan is the superintendent and George Davis the mine boss. It is a shaft seventy-six feet deep, worked on the double entry system and is ventilated by a fan. It penetrates the No. 2 seam which is here fully four feet in thickness. Ninety-five miners and twenty-one day hands were employed. The ventilation on the east side is somewhat sluggish. A search was made which resulted in leakages being found into Milton No. 2. The closing of these crevices will improve the quantity of air in the workings. The mine is kept in good order.

# MILTON NO. 2

Adjoins No. 1 on the south and is operated by the same firm. T. J. Morgan is the superintendent and Wm. Montgomery is the mine boss. It is a shaft seventy-six feet deep, worked on the double entry system and is ventilated by a fan. It is in the same seam which has the same average thickness as No. 1 above. 140 miners and thirty-nine day hands were employed. The mine is kept in fair condition. The airpassages are sometimes choked, but diligence is used in correcting the various defects with fair results. The brattices and doors are fairly attended.

### WELLSTON NO. 1

Is located at Wellston, on the B. & O. S. W. R. R., and is operated by the Wellston Coal Co. T. J. Morgan is the superintendent and Patrick Doody the mine boss. It is a shaft sixty-five feet deep, worked on the double entry system and is ventilated by a fan. Seventy miners and twenty-nine day hands are employed. It is penetrating the No. 2 seam which here varies from twenty inches to four feet in thickness. It has been difficult to keep the workings properly ventilated during the year, as the air was brought to the faces through a waste of abandoned workings subject to frequent disturbances by falls, etc. Diligence was used to correct deficiencies as they occurred. In May and July the mine was partially flooded on the west side through a break in the bottom land. The break was promptly closed and work was resumed in a week.

#### WELLSTON NO. 2

Is adjacent to No. 1 and is under the same management. It is a shaft seventy-eight feet in depth, worked on the double entry system and ventilated by a fan. Cornelius Coyle is mine boss. It is in the same seam as No. 1, with the same average thickness. Seventy-five miners and twenty-eight day hands were employed. This mine suffered more than No. 1 from the flooding of the mine, requiring more pumps and four or five weeks' time to drain, so as to enable them to resume work. The air-way from the fan was partially choked by the water. To eke out the volume of air they received the return air from No. 1 on the northeast entry. While possibly the legal requirement was present the percentage of foul vapors was so great as to render it undesirable to work in. In September the air was let out on the main entry in rear of the water-choked airway and a greater volume of air supplied.

# WELLSTON NO. 3

Is located west of Wellston, on the O. S. R. R., and is operated by the Wellston Coal Co. T. J. Morgan is superintendent and Chas. Hudson and Thos. Stiff successively were the mine bosses. It is a shaft opening eightyseven feet deep, worked on the double entry system and ventilated by a It penetrates the No. 2 seam and is four feet in thickness. miners and forty-six day hands are employed. The mine resumed operation after the destruction of the tipple, etc., by fire late in November. On December 5th I ordered safety gates placed on the shaft. The scales were tested and were found correct on December 23d. On January 11th I stopped the three west entries on the north side until the breaks were properly closed. the south side was ordered clayed to prevent loss into the No. 2 mine. After some delay the work was well done. Thomas Stiff took charge in July. August 17th, Chas. Swearinger, as entry driver on the north side was fatally injured by falling under the trip while in transit. He was riding on the front car, his feet on the bumpers and his hands on the mule's rump, when the mule became detached from the car and he was so injured that he died eight hours after.

# SUPERIOR NO. 1

Is located west of Wellston, on the O. S. R. R. and is operated by the Superior Coal Co. H. C. Murfin is the superintendent and Joseph Currington the mine boss. It is a shaft 100 feet deep, worked on the double entry system and is ventilated by a fan. It is in the No. 2 seam and will average here three and one-half feet in thickness. One hundred and forty-six miners and fifty-five day hands were employed. I tested two sets of scales on February 28th. Those on the O. S. track was found correct, while those on the C., H. & D. track was sluggish in responding. The

hangings were freed from interference by cutting away the ends of the boards that were protruding, after which the weights were weighed correctly. In September the air was sluggish on the north side because of falls in the passageway from the fan. The passageway was ordered reopened. Fourth west entry on the south side was deficient for lack of open inlet. A room was being pushed through the third for that purpose. Much of the roads were wet and muddy.

# SUPERIOR NO. 2

Is adjacent to No. 1 and is under the same management, with W. J. Davis as mine boss. It is a shaft eighty-five feet deep, worked on the double entry system and is ventilated by a fan. It is in seam No. 2 varying from three to four feet in thickness at this point. One hundred and eleven miners and forty-two day hands are employed. On the 6th of November the north side was poorly supplied with air, because of obstructions in the passage from the fan which is through many hundred yards of abandoned workings, and which caused loss of much of the current into the Comet mine. A thorough search was made and a remedy was urged and acquiesced in. June 15th, James Yarrington was found dead on the southwest entry. He was lying with his face buried in slack and water in the middle of the road. It is conjectured that he was taken with an epileptic fit and had fallen in that position and was smothered.

#### SUPERIOR NO. 3

Is located northwest of Wellston on a switch of the B. & O. S. W. R. R. and is operated by the Superior Coal Co. O. B. Gould was superintendent and Harry Phelps and John M. James were mine bosses, successively. It is a shaft forty-seven feet deep, worked on the double entry system and is ventilated by a fan. The seam worked is the No. 2 which here is from three to four feet in thickness. One hundred and sixty-eight miners and 37 day hands were employed. At times during the year the ventilation was sluggish. An examination showed that the brattices were defective and that there was much leakage on the north side not far from the shaft. Near the close of the year these defects were to a great extent remedied and a more thorough drainage provided for.

# SUPERIOR NO. 4

Is located southwest of Wellston, on the C., H. & D. R. R. and is operated by the Superior Coal Co. O. B. Gould is the superintendent and F. M. Hudson the mine boss. It is a shaft seventy-seven feet deep, worked on the double entry system and is ventilated by a fan. The seam worked is No. 2 which here is from thirty to forty inches in thickness. One hundred and one miners and forty-two day hands were employed. The ventilation here as a rule is sluggish. The coal is low and on the south side much of it is in water. During much of the year the number of men is much less than reported here. Brattices were ordered repaired in the various entries of which there are seventeen at work, which order has been complied with. The men are scattered over a large territory and conditions cannot be said to be good.

# SUPERIOR NO. 5

Is located at Coalton on the C. H. & D. R. R. and is operated by the Superior Coal Co. George Weldon is superintendent and Jas. DeWayne and Evan T. Evans successively mine bosses. It is a drift mine worked on the single entry system and is ventilated by a fan. It is working in the No. 2 seam which here is from twenty-five to thirty-seven inches in thickness. One hundred and twenty-five miners and forty-three day hands are employed. The work is carried forward on five entries. Much



vigilance on the part of the Inspector was required to have the brattices kept intact that the air might be carried to the faces of the workings in respectable volume. On June 9th the tract scales were tested and found slightly incorrect. They were then properly adjusted. In October a great fall occurred, completely shutting off three of the entries in the rear of working rooms. They are now opening up one of the entries, from which they will reach the other two.

# SUPERIOR NO. 6

Is located east of Wellston, on the C., H. & D. R. R. and is operated by the Superior Coal Co. O. B. Gould is the superintendent and Wm. Crooks the mine boss. It is a slope worked on the double entry system and is ventilated by a fan. It is in the No. 2 seam which is from three to four feet in thickness at this point. One hundred and ten miners and thirty-four day hands are employed. This mine is kept in good condition. Air is conducted in fair volume to the south side through an extensive goaf. On the north side a deep cut and tunnel has been wrought, lowering the road some fifteen or eighteen feet. The roof is well cared for over the long line of entries. The output is very favorable.

#### ELIZA

Is located near Wellston, on the B. & O. S. W. R. R. and is operated by the Eliza Coal Co. John M. James and Richard Davis were successively in charge. It is a shaft seventy-five feet deep, worked on the single entry system and is ventilated by a fan. It penetrates the No. 2 seam which here is from two to four feet in thickness. Twenty-two miners and ten day hands are employed. Ventilation has been sluggish in the faces at times, because of the long distance the air traverses through old works. Measures have been taken recently that insure a good supply. The mine is fairly cared for.

### COMET

Is located west of Wellston, on the O. S. R. R. and is operated by the Comet Coal Co. Peter Gallagher is superintendent and mine boss. It is a shaft sixty-eight feet deep, is worked on the double entry system and is ventilated by a fan. It is in the No. 2 seam which here has an average thickness of three and one-half feet. Fifty miners and twenty-two day hands are employed. During the year the mine has been annoyed with water, requiring new appliances to control it. These have been applied with success. Air is sluggish at times because of chokes in main passage requiring frequent overhauling. In the main, however, the ventilation is good and other conditions are favorable.

### ALMA

Is located near Glen Roy, on the C., H. & D. and O. S. Rys., and is operated by the Alma Coal Co. Charles Davis is superintendent and George House the mine boss. It is a shaft seventy-two feet deep and is worked on the double entry system and is ventilated by a fan. It penetrates the No. 2 seam, which here is from three to four feet in thickness. During the early months of the year 200 miners and thirty-six day hands were employed. During the summer months thirty-six miners and five day hands were employed in entry work on the line entries preparatory to working the farthest coal first. The roadway in the main road was lowered. The heavy blasting incident thereto shattering many of the brattices, thus making the air very sluggish in the southernmost entries. In October they resumed operations with 100 miners and thirty-two day hands, and worked up to November 6th, the time of the suspension. Ordinarily the ventilation has been fair except during the summer. If opportunity presents itself, they are prepared for a large output. During the summer the scales were tested and found correct.

# ADA NO. 2

Is located near Glen Roy, on the O. S. R. R. and is operated by the Ada Coal Co. N. M. White is the superintendent and C. Smith the mine boss. It is a shaft 110 feet deep, worked on a double entry system and ventilated by a fan. It is in No. 2 seam which here has a thickness of from three to three and one-half feet. 105 miners and twenty-seven day hands were employed. During the year a slope for manway was sunk so that ingress and egress is safe and pleasant. The mine was found in good condition.

# STANDARD

Is located in Glen Roy, on the O. S. & C., H. & D. Rys. and is operated by the Standard Coal Co. D. C. Jones is superintendent and Daniel Jones the mine boss. It is a shaft sixty-five feet deep, worked on the single entry system and is ventilated by a fan. It penetrates the No. 2 seam, which now has a thickness of from two to three and one-half feet. Thirty-four miners and fifteen day hands were employed. This mine has much to contend with in tender roof, long haul and airways liable to be choked at any time. Much diligence is used to keep it in good order with a fair degree of success.

#### NORTHERN

Is located west of Glen Roy, on the C., H. & D. R. R. and is operated by the Northern Fuel Co. D. C. Jones is superintendent and Daniel Jones the mine boss. It is a shaft 45 feet deep, worked on single entry system and is ventilated by a fan. Seam No. 2 here is from thirty to thirty-seven inches in thickness. Thirty-five miners and thirteen day hands were employed. This mine is kept in fair condition.

# JONES AND MORGAN NO. 3

Is located west of the Northern mine and is operated by Jones & Morgan. D. C. Jones is superintendent and David Jones the mine boss. It is a slope worked on the single entry system and is ventilated by a fan. It is in seam No. 2, which is from thirty-two to thirty-six inches in thickness at this point. This mine is kept in good condition.

# EMMA NO. 1

Is located at Altona, on the C., H. & D. and O. S. Rys., and is operated by the Emma Coal Co. Edward Jones is superintendent and V. Sullivan is the mine boss. It is a shaft fifty feet deep, worked on the single entry system and is ventilated by a fan. It is in No. 2 seam which at this point is from thirty to forty inches in thickness. Fifty miners and nineteen day hands were employed. This mine was suspended until May, when it went into operation under charge of August Ruff, mine boss of mine No. 2. The condition of the mine was bad at the beginning, but gradually order was evolved, and a fair ventilation was brought about, except on Sullivan entry, which made it necessary to require the management to repair doors and brattices on this entry. Later Mr. Sullivan took charge and fair conditions are now prevailing. On June 13, I tested the scales on the C., H. & D. tracks and found them correct. June 15, I tested the scales on the O. S. track and found them slow in responding. I advised overhauling, and required the weigh box repaired so that the gate would close securely and prevent loss of coal before weighing.

# EMMA NO. 2

Is located near Altons, on the O. S. R. R. Edward Jones is superintendent and August Ruff is the mine boss. It is a shaft 100 feet deep, is worked on double entry system and is ventilated by a fan. It is in the No. 2 seam which has an average thickness

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here of three feet. 145 miners and thirty-five day hands were employed. A second opening has been provided from a slope which makes a very convenient manway. The mine was idle some months in the early summer and on resumption the air was sluggish on the east side because of falls in the air-way. This has been remedied. I tested scales September 9, and 25, and October 14. At first they were sluggish on the first fifty pounds. I ordered the management to thoroughly clean the joints of the connecting rods which were exposed to all dirt and dust. On October 14 they weighed correctly. On July 16, John Sullivan met his death by a mass of slate falling upon him. Six men were engaged in digging a sump in the airway near the bottom of the shaft. The sump was about nine feet deep when slate fell and killed Mr. Sullivan. The testimony showed that the men frequently, and up to within forty-five minutes of the accident tried the slate and thought it safe to work under. After the fall a slip was found in it that was not visable before.

# TOM CORWIN NO. 1

Is located near Glenroy, on the C., H. & D. R. R. and is operated by the Tom Corwin Coal Co. It is a shaft ninety feet deep, worked on the double entry system and is ventilated by a fan. It is in the No. 2 seam which is from thirty to forty-five inches in thickness here. Monroe Mundhenk and Ira Cherrington were successively superintendents and John Fyffe and T. L. Watkins mine bosses. One-hundred and thirty miners and sixty-eight day hands were employed. From May to August inclusive this mine was not in operation. On the north side the management were ordered to stop the leaks on the main north entry; on the south side it was found difficult to ventilate the 4th east and the 7th west entries. A diagonial entry is being driven from 2nd east to 3rd east and is nearly through now, which will give them ample current on the seventh west entry, a room near the head of the entry has been driven through to No. 6, thus giving them an ample outlet and current. The roads and roof are kept in fair condition. Breakthroughs between entries were found too small in area and ordered made larger. The manway around the shaft was ordered kept clean.

# TOM CORWIN NO. 2

Is located northwest of Wellston, on the B. & O. S. W. R. R. switch, and is operated by the Tom Corwin Mining Co. T. L. Watkins was superintendent and mine boss. It is a shaft thirty-five feet deep, worked on the double entry system and is ventilated by a fan. It is in the No. 2 seam which is here some three and one-half feet in thickness, fifty-two miners and eighteen day hands were employed. This mine is fairly ventilated, the draw-back being the tendency to fill the breakthroughs between the rooms with debris, the bone coal being very thick here. They were ordered to guard against this practice.

# CHNTRAL

Is located on the O. S. R. R., midway between Coalton & Glen Roy, and is operated by the Central Coal Co. D. Armstrong, Jr., is superintendent and Sherman Walker the mine boss. It is a slope worked on the single entry system and is ventilated by a fan. It is in the No. 2 seam of coal which is here from twenty to thirty-seven inches in thickness. This mine is kept in fair condition. Fifty miners and nine day hands are employed here.

# ACORN SLOPE

Is located southwest of Glen Roy, on switches of the O. S. and C., H. & D. Rys. and is operated by the Jones Coal Co. John E. Jones is the superintendent and Joseph Harper mine boss. It is a slope 400 feet in length, worked on the double

entry system and is ventilated by a fan. It is in the No. 2 seam, which here is from thirty-two to forty-two inches in thickness. Seventy miners and eighteen day hands were employed. This mine is generally found in good condition, the exception being the first west entry. It is the only single entry in the mine and the necks of the rooms leak more or less, making it at times sluggish at the face. Prompt attention remedies the difficulty.

# jones no. 2

Is located on Ada switch of the O. S. R. R. and is operated by the Jones Coal Co. John E. Jones is superintendent and H. C. Chapman is the mine boss. It is a short slope, worked on the single entry system and is ventilated by a fan. It is in the No. 2 seam which is from thirty inches to three and one-half feet in thickness at this point. Fifty-five miners and twenty day hands are employed. The mine is in fair condition. On December 23, 1895, I tested the scales and found them correct.

#### BUCKEYE

Is located west of Coalton, on the C., H. & D. R. R. and is operated by the Buckeye Coal Co. Marion Kessinger is superintendent and Phillip Emmons mine boss. It is a drift opening worked on the single entry system and is ventilated by a furnace. It is in the No. 2 seam, which here varies in thickness from thirty-four to forty-four inches. Fifty-five miners and thirteen day hands were employed. This mine was found in fair condition.

#### GARFIELD

Is located near Coalton, on the C., H. & D. R. R. and is owned by the Garfield Coal Co. J. S. Wilson is superintendent and E. L. Rhodes mine boss. It is a drift worked on the single entry system with furnace ventilation. It is in seam No. 2 which is here from twenty to thirty-five inches in thickness. Twelve miners and three day hands are employed. They are now engaged in robbing the pillars. The mine is in fair condition.

# PHŒNIX,

Formerly Glen Nell, is located three miles north of Coalton, on the C., H. & D. R. R. and was operated by the Phœnix Coal Co. Elmer Sell is superintendent and James Vititoe mine boss. It is a drift worked on the single entry system and is ventilated by a fan. There is a question as to whether it is No. 1 or No. 2 seam. It has a thickness of from three and one-half feet down to a few inches. Twelve miners and five day hands were employed. Early in the year they struck a serious fault that cut out most of the coal and caused them to finally abandon the mine.

# HIPPLE'S

Is located at Coalton, on the O. S. R. R. and is operated by the Hippel Coal Co., W. D. Hippel being superintendent and James Gascoyne mine boss. It is a slope worked on the single entry system and is ventilated by a fan. It is in the No. 2 seam which here is from two to three and one-half feet in thickness. Forty-five miners and thirteen day hands were employed. The mine is generally found in good condition. During the year a slope opening has been made to pump out the water.

# COALTON NO. 3

Is located in Coalton, on the O. S. R. R. and is operated by the Coalton Coal Co. Norris Cameron is superintendent and mine boss. It is a slope worked on the single entry system and ventilated by a furnace, It is in the No. 2 seam which here

has a thickness varying from twenty-five to thirty-eight inches. Fifty miners and fourteen day hands were employed. During the year the current was very sluggish on the fifth east entry, to remedy which the airway from straight east entry was repaired. Inattention to the furnace at times reduced the ventilation. Those in authority at the mine have promised to pay more attention to the furnace in future, otherwise the mine is in fair order.

#### SPRINGFIELD

Is located on a switch of the O. S. R. R, and is operated by the Chapman Coal Co. John E. Hayes is superintendent and mine boss. It is a drift worked on the single entry system and has furnace ventilation. It is in the No. 2 seam which has an average thickness here of thirty-two inches. Sixty-two miners and seventeen day hands were employed. The northeast opening was exhausted during the year. The ventilation of the west opening was permitted to get sluggish, caused partly by holeing into the Hippel mine and also from lack of proper attention to the room doors and brattices. Before the close of the year the east side of the mine was abandoned, and attention was given to the development of the west side. A shaft was sunk at the head of Holmes entry, but as they were forced to place a pump in it to drain the mine of its water, they failed to utilize it for ventilation, thus making them dependent on the old inlet for their supply of air. They were closing the opening into Hippel's, and removing the choke from the inlet. At the suspension, November 6th, more work was needed to ventilate effectively. During the summer work was very slack.

#### GRACE

Is located on the Ada switch of the O. S. R. R. and is operated by the Chapman Coal Co. John E. Hayes is superintendent and Edmund Gregory the mine boss. It is a shaft worked on the single entry system and is ventilated by a fan. It is in the No. 2 seam which is here from thirty to thirty-eight inches in thickness. Sixty-four miners and twenty-three day hands are employed. This mine is usually in good condition.

### **ECLIPSE**

Is located on the Springfield switch of the O. S. R. R. and is operated by the Eclipse Coal Co. E. O. Roberts is superintendent and E. T. Hopkins the mine boss. It is a drift worked on the single entry system and ventilated by a basket. It is in the No. 2 seam which here is from twenty-five to thirty-eight inches in thickness. Thirty-five miners and thirteen day hands were employed. The firs half of the year this mine was fairly ventilated, but since that time it has been sluggish at times. Work was very slow, yet the miners on working days would use large amounts of powder in blasting. The brattices were ordered clayed and check doors placed on the entry to clear the foul vapors from the rooms, and a fire on idle days, one day after the run was recommended.

# JACKSON HILL

Is located on the Springfield switch of the O. S. R. R. and is operated by the Jackson Hill Coal Co. Edward Jones is superintendent and J. D. Richards, mine boss. It is a drift worked on the single entry system, and is ventilated by furnaces. It is in the No. 2 seam, which is from two to three and one-half feet in thickness here. This mine is kept in fair condition, although the ventilation is sluggish at times, because of deficient brattices and doors on the rooms. The furnaces are well served. Indiscriminate blasting was in vogue, which kept the air passages full of smoke. Shooting has been restricted to twice a day, and much diligence is used to keep

doors and brattices intact. On December 12th, Peter Brady was fatally injured by an explosion of a keg of powder. He was engaged in perforating the keg with a nail, using a cartridge pin as a hammer, when a spark ignited the powder. He was thrown about fifty feet and was so injured that he died in about thirty hours. On August 6th, Theodore Exline, an experienced miner, and three others, were engaged in drawing a pillar on the first west entry on the south side. They had mined through the pillar on top and one man was boring a hole, as they blasted it because it adhered to the bottom, and Mr. Exline was loosening some coal to finish a car when the slate began falling. All made for the entry, some five or six feet away, but Mr. Exline was caught under the slate and was killed instantly.

#### PRICE

Is located on the Price switch of the O. S. R. R. and is operated by Gosline and Barbour. Lewis Dungan is superintendent and George Hayth is mine boss. It is a drift mine worked on the single entry system and ventilated by a furnace. It is in seam No. 2, which here averages twenty-six inches in thickness. Fifty-one miners and ten day hands were employed. The mine is in fair condition generally, except that the ventilation on the first left entry was meagre, the airway being small in area. It was enlarged by the room next to it being pushed through, and they were required to open up the choked way to the furnace. On February 28th the scales were tested and found to be one pound to the hundred in favor of the miners.

#### TROPIC

Is located three miles west of Jackson, and is operated by the Tropic Iron Co. Miles Jones is superintendent and Daniel Howe the mine boss. It is a drift worked on the single entry system, and is ventilated by a fan. It is in seam No. 1, which here averages forty-four inches in thickness. Twenty-two miners and seven day hands were employed. The mine is in fair condition. It is approaching exhaustion and will not continue in operation much beyond the year.

# STAR NO. 3

Is located in Jackson and is operated by the Star Furnace Co. Henry Price is superintendent and mine boss. It is a slope worked in a variety of ways and is ventilated by a fan. It is in No 1 seam, which is nearly four feet in thickness here. Twenty-six miners and fifteen day hands are employed. Two coal cutting machines operated by compressed air are in use here. The mine is skillfully conducted and is kept in fair condition. A squeeze occurred during the year which was happily overcome by energetic work. A year's operation will probably exhaust the mine.

# HURON

Is located in Jackson and is operated by the Globe Iron Co. Elias Crandall is superintendent and John Jenkins the mine boss. It was a shaft eighty-five feet deep, worked on the double entry system, and was ventilated by a fan. It is in the No. 1 seam, which here is from three to four feet in thickness. Fifty-two miners and eighteen day hands are employed. This is an old mine and the various appliances were disintegrating so much that a new shaft was sunk a half mile west and this mine abandoned. It is called

# GLOBE SHAFT

And is under the same management, and is in the same seam as the Huron. The shaft is 111 feet deep, worked on the double entry system and is ventilated by

a fan. It began operations November 5, '96, when thirty miners and nine day hands were employed. The mine was in good condition.

# JONES OR OAK HILL

Is located at Oak Hill, on the Portsmouth branch of the B. & O. S. W. R. R. and is operated by the Jones Coal Co. Walter Jones was superintendent and Samuel Slattin the mine boss. It is a drift, worked on the single entry system and is ventilated sometimes with a basket. It is in the No. 5 seam, which at this point is about three feet in thickness. Twenty-two miners and six day hands were employed. This mine though small, has not been fairly ventilated. During the summer work was very slow. When last visited in November a new air shaft had been sunk at the head of the second east entry, but the passage from first east was choked. They were pushing a new passageway, which will enable them by the placing of doors on mouths of rooms to ventilate it properly.

# DAVIS & THOMAS

Is located at Oak Hill and is operated by Davis and Thomas. Thomas Davis is superintendent and Evan Evans is mine boss. It is a drift working on the single entry system and is ventilated by a furnace. It is in the No. 5 seam of coal which is here about three and one-half feet in thickness. Twelve men and three day hands were employed. Work was very slow here so that there was not much development. The main entry will go through the hill in seventy-five yards. Matters were fairly conducted.

#### OAK HILL NO. 1

Is located at Oak Hill and is operated by the Oak Hill Fire Brick Co. It is a drift worked on the single entry system with natural ventilation. It is in the No. 5 seam with a strata of fire clay above it. The thickness of both combined is about five and one-half feet. This is an old mine, employing twelve miners and three day hands. They are working irregularly some tracks of coal and clay. A new opening to the north is being worked in which an air shaft was ordered. The clay and coal product is used in the Fire Brick Works.

# VICTOR NO. 1

Is located near Coalton, on the C., H. & D. R. R., and is operated by T. J. Evans & Co. T. J. Evans is superintendent and John Whiting, succeeded by Andrew Kriser, mine bosses. It is a drift worked on the single entry system with furnace ventilation. It is in the No. 2 seam which here varies from twenty to thirty-seven inches in thickness. From six to twenty miners and three day hands were employed. Conditions are good here.

HURD'S SHAFT,

HURD'S SLOPE,

OHIO MINE,

CHAPMAN MINE.

The above, located on the O. S. R. R. have been suspended during the year.

THE FOLLOWING IS A LIST OF MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	No of men.	Postoffice address
Bat's Nest	Drift	Williams Bros	в	Coalton.
Poling No 2	"		8	Dayton.
Higgins		J. W. Higgins	9	Coalton.
Speelman	"		2	"
Rhodes	"		5	"
Omans	"		2	"
Boylan's	Slope		5	•
Peak's	Drift	Wm. Peake	3	"
Rowe's	"	Rowe&Hutchinson	2 5 3 2 2	
Goodrich	"		$oldsymbol{2}$	"
Sells	"		2	46
Hasletts		Chas. Haslett	5	"
Houser	"		6	Chapman.
Foster	"	J. R. Foster	5	14
Chambers		Wm. Chambers	2	"
Brown	"			"
Mrs. Chambers	"	·	2 2	Jackson.
Bryant	"	James Bryant	4	"
Green's	"		4	•
Howe's	"		5	- 46
Law's	"		3	"
Andrew Laws	**	_		46
Roderick's	"		5	"
Thompson's	"		3	66
Thomas	"		2	Oak Hill.
Friley's		Reuben Friley	6	Jackson,
Owen's	"		3	"
Trago	"		3	- "
Call's	44	C. Call & Co	5	16
Faulkner's	"	Jacob Faulkner		Leach.
Lloyd's	"	John Yearian	4	"

# SCIOTO COUNTY.

# OHIO FURNACE (ORE MINE)

Is located near Gervais, and is operated by Meaus, Kyle & Co., producing block iron ore. It is a drift worked on the single entry long wall system, with furnace ventilation. Sixty miners and five day hands were employed. Conditions were fair here until the close of the year, the furnace having been rebuilt and improved.

# MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	No. of men.	Post office address.
Marsh	Drift	W. E. Marsh John North	8 6	EifortGervais

# REPORT OF ALEXANDER BEATTIE,

INSPECTOR OF THE SECOND DISTRICT, FROM NOVEMBER 15, 1895, TO NOVEMBER 15. 1896.

HON. R. M. HASELTINE, Chief Inspector of Mines.

SIR:—I have the honor to submit herewith my fifth annual report of the visits made, and examination of the mines in the Second Mining District of Ohio, for the year ending November 15, 1896. The district embraces the counties of Athens, Gallia, Lawrence, Meigs and Washington, in which are located the mines, to which I made 320 visits during the year. As to the condition of the industry, it can be characterized as one of continued depression, to which can be charged the direct cause of the low prices which existed, and the irregularity with which the mines worked. This has resulted in great privation and misery among the people who depend upon the collieries for a living. Their fortitude under the adversity and their resignation to the conditions over which they had no control foretell their merit.

Seven fatalities occurred in the mines of the district during the year. These are confined to two counties, namely, Athens and Gallia. To the former can be attributed six, one occurring in each of the following mines: Minker Run, Halbert, Evans, Price, Hiawatha and No. 24. At the Jones Slope, in Gallia county, William Lee was killed on December 4th by a fall of slate.

A thorough investigation was made of each at the time it occurred. The inquiries developed that in each instance the responsibility rested upon the unfortunate. This should remind those who work underground of the necessity to exercise an increased watchfulness, and strive to avoid the making of mistakes, which will expose them to the merciless dangers which lurk in all mines. It should also arouse them to a sense of the duty they owe to themselves and to their families. The most startling casualty which transpired during the year, occurred on Sunday, August 23d, at the Oak Dale shaft, which is located near Glouster, in Athens county, whereby the timber in the shaft, the hoisting tower and the chutes were destroyed, and the coal around the bottom of the shaft was set on fire. The mine boss, Mr. Freemont Brannon, had lowered into the mine a barrel of crude oil, taken from a well in the vicinity. This he had placed near the bottom of the shaft, by the stable, in which at the time nine horses were kept. On the above date, with a burning lamp in his cap, he proceeded to knock in the head of the barrel, thus liberating the accumulated gas, which quickly ignited the oil. The flames were immediately communicated to the timber in the hoisting shaft, and with amazing rapidity to the hoisting tower and chutes. Through the mine the fire spread with such celerity as to soon be beyond control by the use of water, as it is often applied in such cases. Mr. Brannon was alone at the time of the accident, and although so seriously burned as to afterward confine him to his bed for several weeks, did not fail to realize the peril in which the few men who were in the mine were placed. These he proceeded with all haste to notify, after which he removed the horses to the interior of the mine, in the hope of being able to save them. By this time the gases threatened to cut off the retreat of the men, and all that was possible with the facilities at hand having been done, they escaped by the ladder in the air shaft. Mr. Brannon's conduct after the accident was highly commendable. In all cases like the above, I would advise that as soon as all persons and the stock have been taken from the mine, that the supply of fresh air be at once excluded, by sealing up all openings which enter the mine. This will enable the carbonic acid gas, generated by the combustion of the coal (it being a non-supporter of combustion), to extinguish the flame. This method of extinguishing mine fires wherever applied, has been productive of good results, the most essential element being to securely

seal the openings. In this case it required ninety days to subdue the fire. I think that the managers of all mines should be familiar with the methods employed to utilize this gas for extinguishing mine fires. The ordeal here encountered suggests an element of danger in all mines, especially those with shaft openings, which has heretofore been overlooked. This is the provision in Section 297, Revised Statutes, whereby the openings must be separated by natural strata, not less than 100 feet in breadth. The proximity of these openings is such that in the above case, or where men are employed a mile or more from either opening, the rapidity with which mine fires spread when at or near the bottom of the shaft, creates a great risk of all means of escape being cut off. Again, while engaged in fightfire in which there always is a danger from the explosion of gas, as well as by being overcome with smoke, and there is a danger of either of these cutting off the outlet before those in peril can reach the surface. With a view of diminishing this danger, I would suggest that Section 297 be amended, so that the words "outlets, separated by natural strata, of not less than 100 feet in breadth," be made to read "slopes separated by natural strata, not less than 500 feet in breadth." This would no doubt meet with some resistance by the owners of shaft mines, owing to the additional expense that it would incur. This position would be untenable when the question of human life is being considered. It is to be hoped that the importance of this suggestion will be realized, and a remedy applied before there is a repetition of some of the mining horrors of the past.

The same perplexing questions, with reference to the oil used in the mines for illuminating purposes, that confronted me at the close of the preceding year, existed during the fore part of the one that has just closed. After months of diligent investigation, the department secured the services of a skilled chemist, in the person of Mr. A. W. Burwell of Cleveland, who discovered that the excessive quantity of smoke emitted while burning the oil, and the obnoxious and vitiating fumes given off, were due to a compound composed of heavy paraffin and low grade cotton seed oils, in the proportion of 25 per cent. of the former, and 75 per cent. of the latter. It will be readily seen that by burning this mixture in an open lamp that the fumes given off by the carbonaceous matter in the naptha, would soon contaminate the air and render it unfit for respiration. During the year I constructed a furnace whereby the oil could be subjected to a smoke test. By this means, violations of the law (section 306 a) are readily exposed. Samples of unlawful oil were secured among the retail merchants at Nelsonville, whereupon I made an affidavit before J. J. Lane, Justice of the Peace, against S. A. Swartz, agent for A. G. Harbaugh & Co., and A. E. Rublee, manager of the Atlas Oil Co. of Cleveland. They appeared before the court on June 10th and 11th, respectively, and entered a plea of guilty and were assessed the minimum fine and costs. This has resulted in the placing of a much better quality of oil upon the market throughout my district.

It is with a sense of deep gratitude that I acknowledge the civility and kindness with which I have been received by all while in the discharge of my duty. My suggestions and recommendations have met with your approval, which convinces me of your confidence, and it is with no small amount of pride that I acknowledge it in submitting this report.

Respectfully,

ALEXANDER BEATTIE, Inspector Second District.

NELSONVILLE, OHIO, November 15, 1896.

# ATHENS COUNTY

#### PHŒNIX NO. I

Is located at Jacksonville. It is a shaft opening into the No. 6 seam of coal. It is worked on the double entry system, ventilated by means of a fan, and is equipped with modern improved hoisting machinery. It is operated by the Phœnix Coal Co., under the personal supervision of Mr. David S. Williams and when in operation employs 150 miners and twenty-five day hands. The capacity of this mine is about one thousand tons per day, but by reason of the depression in the coal trade, and the concentration of the company's business at their other mines, it has remained suspended all of this year.

# PHŒNIX NO. 2

Is located near Glouster, on the line of the C., S. & H. R. R. It is a shaft opening 100 feet in depth, made into the No. 6 seam of coal, and is operated by the Phoenix Coal Company as is No. 1, of the same name. It is operated on the double entry system and has fan ventilation. During the year it was equipped with electric mining machinery. 200 miners and fifty day hands are employed under the personal supervision of Lewis Jones. Four visits were made during the year. It was universally found in good condition. The mine has a capacity of from ten to twelve hundred tons per day.

# MINKER RUN

Is located near Nelsonviile, on the line of C., H. V. & T. R. R. It is a drift opening made into the No. 6 seam of coal. It is operated by the Hocking Valley Coal Co. and is worked on the double entry system, with fan ventilation. Machines operated by compressed air are used in mining the coal. One hundred and seventy fillers, eighteen cutters and thirty-two day hands are employed, which gives a producing capacity of 1,200 tons per day. W. A. Woodworth is the superintendent and N. Williams mine boss. Seven visits were made during the year, on one of which I found it necessary to call the manager's attention to the unsafe condition of the roof in many places in the interior of the mine. On August the 20th, I was called to the mine to investigate an accident in the sixth west entry, which caused the death of Shelby Cox, a laborer. Mr. Cox was engaged in moving a fall of slate from the said entry, when a small particle of slate fell from the roof (a distance of twenty feet), striking him on the head and producing an injury, from the effects of which he died the following day.

# OAK DALE

Is situated near Glouster, on the line of the C., S. & H. R. R., and is operated by the North Star Coal Co. It is a shaft opening ninety feet deep, made into the No. 6 seam of coal. It is worked on the double entry system, has fan ventilation, and the coal is mined with electric mining machines. One hundred and ten miners and twenty-five day hands are employed, producing eight hundred tons of coal per day. Fourteen visits were made during the year, six of which were for the purpose of examining the interior of the mine, and with a few minor exceptions it was found in fair condition. One was made on November 22d for the purpose of testing the scales which were found correct, and seven were for the purpose of advising and assisting in extinguishing a fire in the coal at the bottom of the main shaft, which had started August 23d, from a barrel of lubricating oil. The barrel had been lowered into the mine by the pit boss, who attempted to knock in the head with a sledge hammer, when the escaping gas was ignited by the flame of the lamp that was hanging in his cap on his head, thus setting fire to the oil which spread to the stable nearby, and then to the timbers

in the main shaft, and extending to the hoisting apparatus and other appliances on the surface, all being destroyed before any effective—ork toward extinguishing it was done. On my arrival next day the fire had gained such headway that it was useless to attempt to extinguish it by the usual methods, as it had spread over the main entries and into the interior of the mine, so as to cut off any possibility of rescuing nine valuable horses. I therefore advised that they apply the smothering process, which was done by covering the air and main shafts, thus excluding all air from the fire. On November 9th, the date of my last visit, I found workmen in the mine who had the fire under control and were hopeful of extinguishing it within a few hours. A. D. Bates is the superintendent and Fremont Brannon the mine boss.

# KISTLER, OR NO. 16,

Is located two miles west of Glouster, on a branch of the T. & O. C. R. R. It is a shaft opening 110 feet deep to the No. 6 seam of coal. It is operated by Courtright and Kistler, and is worked on the double entry system with fan ventilation. During the year it was equipped with an electric plant. Morgan and Gardner mining machines are used to cut the coal, which is then hauled to the bottom of the shaft by an electric motor. Four visits were made at various times during the year, and on each occasion the mine was found in a satisfactory condition. Two hundred miners and forty day hands are employed. The capacity of the mine is about one thousand tons per day. D. C. Thomas is superintendent, and James Weekly mine boss.

# SPRINGFIELD NO. 2

Is a drift opening into the No 6 seam of coal. It is located one mile northeast of Nelsonville, on the line of the Monday Creek Branch of the C., H. V. & T. R. R. It was formerly operated by the Springfield Coal and Ice Co., but is now operated by the Maple Hill Coal Co., having changed hands during the year. It is worked on the double entry system with furnace ventilation. It was visited twice during the year. On March 25th, the date of my first visit, I found it just resuming operation after a suspension of more than twelve months. It was always found in good condition. Twenty-four miners and eight day hands are employed, under the personal supervision of Jos. Moore. The capacity of the mine is about 125 tons per day.

CRESCENT, OR NO. 24,

Is a shaft opening about 100 feet deep made into the No. 6 seam of coal. It is located at Jacksonville, on the line of the T. & O. C. R. R. and is operated by the Northern Fuel Co., the double entry system being adopted. It is equipped with cutting machines, which are operated by electricity and has fan ventilation. An electric motor hauls the coal to the bottom of the shaft. One hundred and eighty miners and thirty-three day hands are employed. The mine has a daily capacity of 1,100 tons. Mr. F. S. Knox is the superintendent, and Mr. Edward Lynch is the mine boss. Six visits were made during the year when the mine was found in its usual good condition. On October 28th I visited it for the purpose of investigating a fatal accident to Andrew Ligic, a miner. Mr. Ligic was engaged in undermining some standing coal at the face of his working place, which had been previously shot, when it fell upon him causing his death.

# OLD HICKORY

Is a shaft opening sixty feet deep into the No. 7 seam of coal. It is located at Jack-sonville and is owned by Maynard Bros., of Columbus, Ohio. It employs about fifteen miners when in operation, but has been suspended during the past five years.

# CARBONDALE

These are drift mines opened into No. 6 seam of coal near Carbondale, a station on the line of the Mineral City Branch of the B. & O. S. W. R. R. They are the property of the Carbondale Coal Co. Thos. Smith is superintendent and Peter Hoak mine boss. They consist of a group of three openings, one each in the north, south and east hills, all are worked on the double entry system and have fan ventilation. The east hill has been suspended throughout the year. The coal of all three mines is transferred over the same tipple. Thirty-three miners and seven day hands are employed. Their capacity is about 100 tons per day. When visited on November 15th they were found in good condition.

# TRACE RUN, OR BECKLER,

Is a drift opening made into the No. 6 seam of coal. It is located near Carbondale on the line of the Mineral City branch of the B. & O. S. W. R. R. It is owned by P. J. Beckler and is operated on the single entry system, employing twelve miners and three day hands. The mine is under the personal supervision of Mr. J. F. Beckler. When visited November 13th, it was found abandoned, as the coal had been exhausted.

#### NO. 4

Is located at Jacksonville. It is a shaft opening one hundred and ten feet deep, to the No. 6 seam of coal, and is owned by W. P. Rend. It is operated on the double entry system. Cutting machines operated by compressed air are used for mining the coal and a fan is used as an artificial means of ventilation. One hundred and sixty miners and thirty-six day hands are employed, under the personal supervision of D. S. Williams. The capacity is about 1,000 tons per day. Five visits were made during the year. On May 1st I tested the scales and found them weighing correctly. The other four visits were made periodically during the year. The mine was generally found in good condition.

# BRIER KIDGE OR NO. 6

Is operated by W. P. Rend & Co. It is a shaft opening one hundred feet deep to the No. 6 seam of coal. It is located at Glouster, and is worked on the double entry system. The coal is mined with mining machines which are operated by compressed air. Two fans are used as means of ventilation. One hundred and forty miners and forty-five day hands are employed, who mine about 900 tons per day. Nine visits were made during the year. November 26, 1895, and November 11, 1896, I tested two pairs of scales, and found them weighing correctly. On July the 29th I found that portion of the mine known as the first and second east entries inundated, by reason of a stream overflowing the low lands in the vicinity of the shaft and finding its way into the mine through a break to the surface from room No. 6 on said first east entry. As the coal is excavated under a large portion of this bottom land, I feared a reoccurrence of this incident, under similar circumstances, and wired the Chief Inspector of Mines to meet me at the mine for consultation. He arrived on the 31st, when we proceeded to examine this section of the mine. After viewing the situation it was decided to advise the building of supports (known as cribs) in all of the abondoned workings under said low lands, for the purpose of securing it against further falls. Otherwise the mine has been generally found in fair condition. D. S. Williams is superintendent and Daniel McBride mine boss.

NO. 10

Is a shaft opening one hundred and ten feet deep into the No. 6 seam of coal. It is located at Derthick, on a branch of the T. & O. C. R. R., two miles southwest of

Glouster, and is owned by the Sunday Creek Coal Co. It is operated on the double entry system and mining machines, operated by compressed air are used to cut the coal. One double and one single fan is used as a means of ventilation. On my several visits during the year the mine was found in its usual good condition. Three hundred miners and eighty-two day hands are employed. Mr. C. C. Sharp is the superintendent and John Hopkins the mine boss. The capacity is about 1,200 tons per day. My attention was recently called to an accident which occurred in the mine on September 18th, and upon investigation I learned that Julius Hartman and his two sons, William and Charles, aged eighteen and fourteen respectively, were grouped together in their working place, and from a can, were filling a cartridge with powder, which became ignited from their burning lamps which were on their heads, causing it to explode and severely burning the others and fatally injuring William, who died the same evening. As the Department was not notified until the following November, no official investigation was made of the accident.

### SEDALIA

Is a slope opening into the No. 7 seam of coal. It is located at Glouster and is operated by William Palmer who is also the General Manager. It is worked on the double entry system with furnace ventilation. Four visits were made during the year, and on one of these, August 19th, the scales were tested and found to be correct. With the exception of some minor affairs the mine was usually found in fair condition. Sixty-five miners and seven day hands are employed, under the personal supervision of Thos. Mooney. The capacity is about 250 tons per day.

# FURNACE OR NO. 21

Is a drift opening located at Buchtel, on the line of the Snow Fork branch of the C., H. V. & T. R. R. It was last operated by Scott and Ball, who employed fourteen miners and two day hands. It has not been in operation during this year. When last operated L. L. Scott was superintendent and Henry Ball the mine boss.

### PICKETTS

Is a drift opening into the No. 6 seam of coal, which is located on the line of the C. H. V. & T. R. R., one mile south of the village of Nelsonville. It was operated by Bartell and Spencer, who employed fifteen miners and two day hands. When visited on January 14th it was found abandoned.

### WEST FLOODWOOD

Is located at a station by that name, on the line of the C., H. V. & T. R. R., and is owned by the Glenmore Coal Co. It is a drift opening into the No. 6 seam of coal and is operated on the double entry system. A small furnace is used as a means to produce ventilation. Forty miners and seven day hands are employed. G. W. Gill, of Columbus, is the superintendent and G. C. Silcot the mine boss. When visited on April 16th it was found suspended and has remained so during the remainder of the year.

# BROADWELL

Is located at a station by that name, on the line of the T. & O. C. R. R. It is a drift opening into the No. eight seam of coal. It was formerly operated by the Federal Valley Coal Co., but is now operated by N. W. Musgrave, having changed hands during the year. It has been worked on a hap-hazard system, natural pressure being relied upon as a means of ventilation. On my last visit, September 30th, this

was found to be insufficient, but as the management was making a new opening near by and transferring the men thereto in view of its abandonment, I did not require any improvements made. Seventeen miners and six day hands are employed.

# FEDERAL NO. 2.

Is located at Utley, on the line of the T. & O. C. R. R. extension, and is operated by the Marietta Run Coal & Coke Co. Jacob Schuler is the superintendent, and Mr. Chas. Coleman the mine boss. It is worked on the double entry system and has fan ventilation. It is a drift opening which penetrates the No. 8 seam of coal, which here is separated by eight inches of fire clay overlain with twenty-four inches of gray shale. This band is situated in the centre of the coal seam, the whole being eleven feet in thickness at this point. Thirty-three miners and fourteen day hands are employed. The mine is equipped with a rope haulage, and mining machines operated by compressed air are used for cutting the coal. The visits made during the year were on February 5th, June 23d, and September 30th. On the first two occasions, I found the mine amply ventilated and in a safe condition, but on September 30th, I found the passage-way for the loaded trains obstructed by falling slate, also coal lying in the main haulway, thus increasing the possibility of the cars drawn by the rope leaving the track, and thereby adding danger to the already hazardous position of the rope rider. I requested the superintendent to have the obstructions removed. While the system of supporting the roof in the advancing rooms with timber may be sufficient for the present security of the mine, I fear it will not be to protect it in the future while extracting the room pillars, as there is too great a distance between the posts, which consist of one row on each side of the road-way along the centre of the rooms, which are thirty feet in width. To this I have called the attention of the management on each visit so far without any notable change in the method.

# BLACK DIAMOND

Is a drift opening into the No. 8 seam of coal. It is located at Lathrope, on the line of the T. & O. C. extension, and is operated by the Black Diamond Coal and Coke Co. The mine is conducted on the double entry system and is ventilated by a fan. Electric mining machines are used in under-cutting the coal, which is hauled to the tipple by an electric motor. On my various visits I found it necessary to call the attention of the superintendent and also that of the miners to the dilatory tendency of setting timbers in the working places, and requested that more attention be given to this matter as a means of protection to the workmen. Otherwise the mine was usually found in fair condition. The number of miners employed during the year varies from fifty-five to one hundred and twenty-five, while the number of day hands is fifteen. The mine is under the personal supervision of George Green. Its capacity is about 400 tons per day.

# MCKINNEY

Is a drift opening made into the No. 8 seam of coal. It is located at Lathrope, on the line of the Sharpsburgh branch of the T. & O. C. extension. It is owned by the McKinney Coal Co., and is operated on the double entry system. It has fan ventilation and is equipped with a rope haulage. It has been suspended since 1894. At that time it employed ninety miners and eight day hands, who were under the personal supervision of Thos. Opie.

NO. 3

Is a drift opening made into the No. 6 seam of coal. It is located near Bucthel, on the Snow Fork branch of the C., H. V. & T. R. R. It is owned by Juniper and Lampman and is operated on the double entry system. Natural pressure is relied

upon as a means of ventilation. When visited on March 24th and 25th it was found idle and no examination was made. On July 7th I found it in bad sanitary condition by reason of inadequate ventilation. I therefore requested that operation in the mine cease until it was sufficiently ventilated. On July 13th I visited it again by request of the management and found an air shaft sunk near the face of the workings and the mine in a fair condition. Twenty-five miners and three day hands are employed, under the personal supervision of J. M. Stillwell.

### HIAWATHA

Is a drift opening made into the No. 6 seam of coal. It is located at Orbiston, on the line of the Snow Fork branch of C., H. V. & T. R. R. It is operated by the Raybould Coal Co., and is worked on the double entry system, has fan ventilation and electric mining machines are used for cutting the coal. The mine is usually found in good condition. On March 7th I visited it for the purpose of investigating the cause of the death of John Corbett, who on the 5th inst., while engaged in putting up electric wires in the mine and while standing several feet from any charged wires on the first east entry, was seen by his companions to fall. He expired in a few minutes. It is thought that his death was due to heart trouble. On September 26th the scales were tested and found to be correct. One hundred and seventy miners and thirty-five day hands are employed. Samuel Raybould is the superintendent and Wm. Raybould the mine boss.

# CLAY NO. 5

Is a drift opening into the No. 7 seam of clay. It is located one mile west of Nelsonville, on the line of the C., H. V. & T. R. R. near the company's factory, where the output is used for the manufacture of paving brick, sewer pipe and other useful commodities. It is owned and operated by the Nelsonville Sewer Pipe Company and is worked by driving the entries 100 feet apart and intercepting them by headings separated by an equal distance. It is ventilated by means of a furnace. Five visits were made during the year. On February 13th I found a squeeze crossing over the main entries which threatened this part of the mine. I advised the manager to support the roof by setting cribs along each side of the entry, which was done with good results. Otherwise the mine has been usually found in good order. Ten miners and two day hands are employed. James Dew is the general manager and Samuel Colter the mine boss.

### DALETON

Is a shaft opening 130 feet deep made into the No. 6 seam of coal. It is located four miles south-west of Athens, on the B. &. O. S. W. R. R. and is operated by the Athens Coal company. The double entry system is here used with fan ventilation. They have an electric plant which has not been in operation for several years on account of the dilaceration of the roof, which is generally very tender by reason of the vibration of the braces attached to the roof from the cutting machine. This has again been brought into use by the introduction of the improved chain mining machine, which is giving better satisfaction. Several visits were made during the year. On January 28th I found the air in the interior of the mine unfit for resperation, on account of its contamination with powder smoke produced by continual blasting, it being the custom to shoot off the solid during working hours. The plant renders the air unfit for respiration. I therefore requested operations to cease until rules governing this case could be promulgated. A rule was made prohibiting the use of explosives during working hours, and thereafter the mine was found in good sanitary condition. One hundred and fifty miners and thirty day hands are employed. The mine has a capacity of about 400 tons per day. H. R. Sackett is the general manager and Thos. Flemming the mine boss.

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#### WELLS

Is a drift opening made into the No. 6 seam of coal. It is located at a station known as Boyles Crossing, on the line of the C., H. V. & T. R. R. It is owned by A. H. Well of Nelsonville and is operated on a hap-hazard system It is ventilated by means of an iron basket located at the bottom of an air shaft. The coal is hauled about one mile by road wagons to the railroad, where it is loaded into cars. Eleven miners and two day hands are employed. They are under the personal supervision of Isaac Six. When the mine was visited on February 3d it was found in a good sanitary condition.

#### FLM ROCK

Is a new drift opening into the No. 6 seam of coal. It is located near West Floodwood, on the line of the C., H. V. & T. R. R. and is operated by Bartell and Spencer. It is worked on the double entry system. Natural pressure is relied upon as a means of ventilation and this is sufficient for the number of persons employed, as they are working near the surface. When visited on January 14th and April 13th it was found in good condition. Twenty-eight miners and three day hands are employed under the personal supervision of John Spencer.

# HALBERT

Is a drift opening made into the No. 6 seam of coal. It is located at West Flood wood, on the line of the C., H. V. & T. R. R. and operated by Mason and Shaffer, Mr. G. V. Shaffer having purchased Mr. Wm. Donley's interests during the year. The mine is worked on the double entry system and is ventilated by an improvised furnace. Early in the year the air was found to be insufficient and the company was requested to sink an air shaft near the working place. This was done, and thereafter the mine was usually found in a fair sanitary condition. January 4th I was called to the mine to investigate an accident which caused the death of Wesley H. Thornton (a miner), which occurred on the 3d inst. Mr. Thornton was at the face of his room engaged in loading a car with coal, when some loose slate which had been liberated by a previous shot in the coal fell upon him, instantly killing him. Seventeen miners and two day hands are employed under the personal supervision of William Mason.

### PRICE

Is a drift opening made into the No. 6 seam of coal. It is located near a station known as Boyles Crossing, on the line of the C., H. V. & T. R. R. It was owned by the Johnson Bros. and was operated in a workmanlike manner. Natural pressure as a means of ventilation was relied upon, which was sufficient as the workmen were employed near the surface. I was called to the mine on February 3d for the purpose of investigating an accident, whereby William Franklin Johnson, one of the proprietors, was instantly killed. Mr. Johnson was loading coal into a car at the face of room No. 3 on the main entry, his working place, when a large body of slate fell upon him from the roof with fatal results. The mine has since been abandoned. Five miners and two day hands were employed under the personal supervision of Hezekiah Johnson.

# CLIFFE

Is a drift opening made into the No. 6 seam of coal. It is owned and operated by the East Clayton Clay Manufacturing Co., and is located at a station by the same name as the mine, on the line of the C., H. V. & T. R. R. The mine is worked on the double entry system with furnace ventilation. The output is all consumed at the company's factory, which has been so effected by the business depression that the mine has been idle nearly all of this year. Ten miners and two day hands are employed. When in operation they are under the supervision of David Loomis.

#### EAST CLAYTON CLAY

Is a drift opening made into the No. 7 seam of clay and it is the property of the East Clayton Clay Manufacturing Co., who own the Cliffe coal mine. It is located in the same hill, which is near their factory, where the output is used in the manufacture of paving brick. It is worked by driving parallel entries 100 feet apart with intercepting headings a corresponding distance, thus forming square blocks. A furnace is used as a means of ventilation. When visited on November 25 the main entry was found in an unsafe condition, as a slip in the hill had displaced the timbers supporting its side. I requested a new opening made to intercept the working places to be used as a place of ingress and egress. This has been completed and the mine was found thereafter in fair condition. Usually there are about ten miners and two day hands employed. J. C. Lama is the superintendent and C. E. Walett the mine boss.

#### BESSIE

Is a shaft opening sixty feet deep made into the No. 6 seam of coal. It is located near Glen Ebon, on the line of the C., H. V. & T. R. R., and is owned by the Buckeye Coal Co., who operate it on the double entry system. They use a fan for ventilation. Compressed air is used to operate the mining machines by which the coal is mined. When examined January 13 the escapement way was found to be closed by water which had accumulated in a swale on the entry between the main entry and an air shaft, thus retarding the ventilation of the mine and reducing it to a bad sanitary condition. I requested operations in the mine to cease until the water could be pumped out, and an available communication established between the two shafts. On January 25 I found my requests of the former visit complied with and permitted the mine to resume operation. On April 3 I visited it for the purpose of investigating an accident causing a painful injury to Chas. Shaffer. On the above date he was examining the mining machine which he was operating while it was in motion, and his hand was caught in the cutting bar, terribly lacerating it, August 10, the date of my last visit, I requested timber set at the face of all the working places along the third and fourth east entries. The mine was otherwise found in fair condition. Seventy-five miners and twenty-five day hands are employed under the management of John Ginitty. The capacity of the mine is about 400 tons per day.

### EVANS

Is a slope opening made into the No. 7 seam of coal. It is located at Glouster and is owned and operated by D. T. Evans & Sons. The output is used for domestic purposes in the vicinity where located. It is worked on the double entry system and has fan ventilation. I visited it on March 5 to investigate an accident to Morgan Parker, who had temporarily gone into the No. 3 room on the Evans entry to mine some coal for his own use, when he was instantly killed by falling slate. Owing to the peculiarity of the roof there was not sufficient timber set to secure the safety of the workmen. Seven miners and two day hands are employed under the supervision of D. T. Evans.

### BELL RUN

It is a drift opening made into the No. 6 seam of coal. It is located about three miles northeast of Nelsonville on the Monday Creek branch of the C., H. V. & T. R. R. It is owned by the Maple Hill Coal Co. and is operated on the double entry system. A furnace is used as a means of ventilation. During the year it was equipped with an electric plant, electric mining machines being introduced to mine the coal. On the occasions of my examinations it was usually found in good condition. Sixty-five miners and five day hands are employed under the personal supervision of Joshua Spencer. The capacity of the mine is about 300 tons per day.

THE FOLLOWING IS A	LIST OF SMALL	MINRS VISITED	DURING THE VEAR.
A III I OLLOWING 13 A	TIST OF DESTIN	TITITIO A TOTTED	DURING IDD IDAK.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners.	Postoffice address.
New, No. 29 Brier Hill Federal No. 1 Sunflower Robins Evans Pugh Ridge Barber No. 68 No. 59 Graham or No. 27 Oak Grove	«	Wilson & Siddle Juniper&Lampm'n G. W. Haybron Ward Coal Co Ed. Holland C. P. Evans Henry Pugh Wm. Barber James Stevenson C. B. Graham Clark Wilson	8 7 5 2 10 1 1 4 2	Nelsonville.  Broadwell. Nelsonville.  " " " " " " " Buchtel. Nelsonville.

# GALLIA COUNTY.

#### CARLS

Is located at Carlton on the line of the C., H. V. & T. R. R., and is operated by Carl and Bing, Mr. Mack having severed his connection with the company during the year. It is a drift opening, is worked on the double entry system and has furnace ventilation. On October 19th, the date of my last visit, I found parts of the mine in an unsafe condition, and requested operations therein to cease until sufficient timber could be set to support the loose roof, which was found to be overhauging the roadways. Twenty miners and ten day hands are employed under the personal supervision of H. V. Carl.

# JONES SLOPE

Is a new slope opening located on the Little Raccoon Creek, three miles southwest of the village of Vinton in Huntington township. It is operated by J. W. Jones of Gallipolis for the purpose of prospecting, the coal being now used for domestic purposes in the vicinity. I visited it on December 6, for the purpose of investigating a fatal accident in which William Robert Lee was instantly killed by a fall of slate on December 5, 1895. I was informed that Mr. Lee was not a practical miner, and the casualty can probably be attributed to his inexperience in mining. Three miners and two day hands are employed under the management of J. W. Jones.

# FOLLOWING IS A LIST OF SMALL MINES VISITED DURING THE YEAR.

Name of mine.	Kind of opening.	Name of operator.	Number of miners.	Postoffice address.
Carl No. 2	Drift	Carl & Bing	7	Carlton.

#### LAWRENCE COUNTY.

#### KELLEY

Is a drift opening located in the city of Ironton, and when in operation is operated by the Kelley Iron & Nail Co. It is worked on the double entry system and is ventilated by means of a furnace. It was visited twice during the year, but on each occasion it was found idle and no examination was made. I am informed that it has been in operation but little during the year. Twenty-eight miners and six day hands are employed under the personal supervision of Conrade Cline.

#### NEW CASTLE

Is a drift opening located at a town by that name, about three miles north of Hanging Rock. It is owned and operated by Means. Kyle & Co., and is worked on the single entry system. Natural pressure is relied upon as a means of ventilation which is sufficient, as the entries are driven through the hill and the miners are employed near the surface. Fifty-five miners and twenty day hands are employed in excavating coal, clay and lime-stone, one strata over-lying the other in close proximity. On the occasion of my visits during the year it was generally found in fair condition. Mr. E. B. Willard is the superintendent and Hugh Shields the mine boss.

# LAWRENCE MILL

Is located at Vesuvius on the line of the Iron R. R. It is a drift opening operated by Henry Pirrung & Son. It is worked on the single entry system and natural pressure is depended upon as a means of ventilation. When in operation fifteen miners and six day hands are employed. When visited on April 23rd I found it undergoing general repairs, with a view of resuming operations after a suspension which began in February, 1895. On September 2d, the date of my last visit, it was again idle and no examination was made. Henry Pirrung is superintendent and mine boss.

# BELFONT

Is located at Vesuvius and is the property of the Belfont Iron Works. It is a drift opening and is operated on the single entry system with furnace ventilation. When visited on April 23d and September 2d, it was found idle and no examination was made. I understand it has been suspended all the year. Forty miners and eight day hands are employed. When in operation the mine is under the personal supervision of John W. Farmer.

# OLD MILL

Is located near Vesuvius on the line of the Iron R. R. It is a drift opening owned by Molhern and Walters, and operated on the single entry system. It is ventilated by natural means. Sixty-five miners and six day hands are employed. When visited on April 23d and 24th, it was found in very bad sanitary condition, which I attributed to insufficient ventilation. The roadways were almost impassable by reason of poor drainage. I therefore requested operations, except for repairs, to cease until drainage was complete, and an artificial means of ventilation was provided. On September 2d, the date of my last visit, it was idle but undergoing general repairs. John Molhern acts as superintendent and mine boss.

# EVERSELY ORE, NOS. 1, 2 AND 3

Are drift mines, the property of the Heckla Iron and Mining Co., and located about two miles east of the Heckla blast furnace, which is owned and operated by the

same company. Nos. 1 and 2 are opened in the same hill in close proximity to each other, while No. 3 is in a hill separated by Ice Creek, and is one-half mile nearer the furnace. When visited on April 29th they were found in fair condition. Nos. 1 and 3 are ventilated by small furnaces, while natural pressure is used at No. 2. Seventeen miners and two day hands are employed under the management of Henry Stephenson.

# WILLARD LIME AND CLAY, NOS. 1 AND 2

Are drift openings operated by E. B. Willard & Co., and are located at Steece, on the line of the C., H. & D. R. R. They are situated in opposite hills, separated by a narrow ravine. They are worked on the single entry system, the entries being driven through the hills. Natural pressure is used as a means of ventilation. On September 1st, the date of my last visit, they were found in fair condition. Twenty-five miners and four day hands are employed under the personal supervision of S. S. Littlejohn. Limestone, clay and iron ore are taken from these mines.

# HALL,

1s a drift opening located at Mt. Vernon on the line of the C., H. & D. R. R., and is operated by John F. Hall & Co. It is worked on the single entry system and has furnace ventilation. When visited on April 20th I found it in very bad sanitary condition, the air being so contaminated with powder, smoke and other impurities as to be unfit for respiration. This was caused by the frequent blasting of powder in the coal during working hours, and as this practice was in direct violation of rules which on my previous visit I had requested the company to adopt, I notified the management that I would consider a reoccurrence of this condition as sufficient ground for prosecution under section 6871. On August 31st, the date of my last visit, the mine was found idle and no examination was made. Thirty-five miners and five day hands are employed. Mr. Isaac Hall is the superintendent, and Ed. Brohard is the mine boss.

# LYND, NO. 2

Is a new drift opening located near the city of Ironton, and is operated by B. F. Lynd for domestic purposes. On September 4th, the date of my last visit, it was found in a bad sanitary condition, as the natural pressure which is relied upon as a means of ventilation was insufficient. I requested an artificial means of ventilation provided. Ten miners and two day hands are employed, under the personal supervision of John Tate.

# KELLEY LIMESTONE

Is a drift opening into the limestone. It is located near Centre station on the line of the Iron Railroad and is operated by Linsey Kelley. The mine is worked on the single entry system and is ventilated by natural means, which is sufficient, as the employes are engaged near the surface. Ten miners and three day hands are employed under the personal supervision of Peter Burke.

# DEEGANS

Is a drift opening near Coal Grove and is operated by Frank Deegans for domestic purposes. It is worked on the single entry system and is ventilated by means of a small furnace. When visited April 27th it was found in good condition. Ten miners are employed and as they push the coal to a platform on the surface, no day hands are engaged. Frank Deegans is general manager.

 $\mathsf{Digitized}\,\mathsf{by}\,Google$ 

#### LAWRENCE LIME.

This is a drift opening on the company's lands near Culberston, on the line of the C., H. & D. R. R. It is operated by John Peters Iron Co., the output being used at the company's blast furnace for the manufacture of pig iron. Natural pressure is used as a means of ventilation. When visited April 22d and September 1st, it was found in good condition. Twenty-one miners and two day hands are engaged in mining limestone. They are under the personal supervision of William Burns:

Following is a list of small mines visited during the year.

Name of mine.	Kind of opening.	Name of owner or operator.	No. of miners.	Postoffice address
Olive coal	Drift	M. H. McGugin	1 .	Olive
Miller No. 1	"	Thos. Miller	ī	Ironton
Heckla Nos. 1 & 2	"	I. A. Bladwell	. 4	
Phillips Nos. 1 & 2.	"	J. W. Phillips	· 4	- "
Steed	"		$oldsymbol{\hat{2}}$	Forest Dale
Cary No. 8	"	Philip Carey	ā	Coal Grove
Pine Grove Ore		Lamp Carey	-	J com Grove
No. 4	"	Means, Kyle & Co.	4	Hanging Rock
Richey Nos. 4and 5	"			Ironton
Fink	"	1 <sup>1</sup> 1	4 .	noncon .
Lane Nos. 1, 2 & 3.	"	I. O. Lane	8	
Haskell clay, ore	*******	Forestdale F., B.	J	1
lime	"	& T. Co	6	Ashland, Ky.
Haskell No. 1	"	Forestdale F., B.	· ·	Asmand, Ly.
Laskell 110. 1	*******	& T. Co	4	
Dillon	"		2	Forestdale
Rine	"	Phillip Cary	2	Coal Grove
Cline	"		3	Ironton
Sherman	"			Coal Grove
Lime Stone	"		2 2 3 8	Hanging Rock
	66		ő	Ironton
Anson Abels	"		ě	110Hton
Blackwell No. 3	"		3	
Bester	44		5	} "
Lynd No. 2			10	44
Apels No. 2			3	66
Lawrence Lime		John Peters Iron	o	-
PRATERICE PIETE	"	Co	21	Culberston

# MEIGS COUNTY.

# SYRACUSE SHAFT

Is located at Syracuse, on the banks of the Ohio River and is operated by the Syracuse Coal & Salt Co. L. H. Bridgman is the superintendent and Thos. Mainwaring, the mine boss. It is a shaft opening sixty feet deep, penetrating the No. 8 seam of coal which is four feet in thickness at this point. The coal is locally known as the Pomeroy seam. It is worked on the double entry system. During the year a new fan has been built and placed at the top of the air shaft as a ventilating medium and this gives better satisfaction than the furnace which has been abandoned. There was also a new stair-way placed in the main shaft during the year as a means of egresa and ingress. Eighty-five miners and thirty-two day hands are employed. I tested the scales on May 28th and found them correct. In my varions other visits to the mine it was found in good condition.

### SYRACUSE SLOPE

Is situated one mile west of the shaft bearing the same name. It is sunk on the same territory, is owned and operated by the same company and is conducted under the same management. It is a slope opening about three hundred feet long made into the Pomeroy seam of coal. The mine is worked on the double entry system. As it is used as the inlet for the air to the shaft it is ventilated by the same means as the mines connected by the east and west entries. Eighteen miners and seven day hands are employed. Three visits were made during the year and on each occasion it was found in good condition.

# WILLIAMS

Is a drift opening into the Pomeroy seam of coal. It is located on the banks of the Ohio river in Sutton township. It is operated by John E. Williams. The double entry system is adopted in mining. It is ventilated by a furnace and a gasoline motor is used to haul the coal from the interior of the mine to the tipple. Several visits were made during the year when various minor improvements were recommended for the security of the workmen. On October 8th and 9th I found a squeeze, which in their efforts to check it, has been the source of a great deal of anxiety and expense during the year, had closed the passage way between the second and third west entries, thus cutting off the escapement way for all persons employed on the second west entry. I therefore requested work therein to cease, except in repairing, until an available and safe way could be provided for the employes to go to and from their working places. Thirty-five miners and seventeen day hands are employed. John E. Williams is the manager and W. H. Thomas, the mine boss

# MINERSVILLE

Is located at a town by that name on the banks of the Ohio river. It is a drift opening into the Pomeroy seam of coal and is owned by D. S. Lewis. It is operated on the double entry system and has furnace ventilation. On my various visits to the mine during the year, I had occasion to request several minor improvements made, but otherwise the mine was found in fair condition. Twenty-six miners and twelve day hands are employed under the personal supervision of John W. Lewis.

# GLEN-DALE

This is the west portion of the Minersville mine previously adandoned. During the year it was leased and reopened by the Kanawha Salt Co. the output being used at the company's salt works, located near by. As the mining is all done in pillars which were abandoned by a former company and are isolated from any regular air current, its sanitary condition at times was not satisfactory. It was found necessary to cease operations in the interior of the mine until better ventilating appliance could be provided. This was done by cutting through a pillar of coal thus opening the way to an old furnace, which was put into use and made ventilation sufficient for the number of persons employed. As the quantity of coal is very limited, I am informed the company is seeking another location. Sixteen miners and four day hands are employed under the personal management of Samuel Edwards.

# COAL RIDGE

Is a drift opening made into the Pomeroy seam of coal. It is located within the incorporated limits of the city of Pomeroy. The mine is owned by the Coal Ridge Salt Company and is operated on the double entry system. Natural pressure is used as a means of ventilation which is sufficient for the number of persons employed, as they are engaged in mining the crop coal near the surface along the entry that

leads through the hill. The mine was usually found in good condition. Fifteen miners and five day hands are employed. Jos. W. Thomas is the superintendent and D. W. Daniels, the mine boss.

#### CHARTER OAK

Is a drift opening located at Pomeroy and is operated by the Charter Oak Fuel Co. It is worked on the double entry system. During the year the furnace formerly used as a means of ventilation has been abandoned and a new fan erected for that purpose which is giving better satisfaction. It would be more useful as a ventilating medium if it were placed at the top of the air shaft rather than in its present location, which is at the mouth of the main haul-way, as the opening of a door placed at the entrance of the mine for the purpose of forcing the air-current to the interior, greatly retards and interferes with its efficacy. On my several visits I found it necessary to require some repairs made on the brattices between the entries, as they were leaking in a great many places and allowing the air to escape before reaching the working places. Fifty-six miners and sixteen day hands are employed. B. Malone is the superintendent and Ed. Weeks, the mine boss.

# EXCELSIOR

Is operated by the Excelsior Salt Co. It is a drift opening made in into the Pomeroy seam of coal. It is located near the company's salt works in the city of Pomeroy; the output being used for steam purposes. The mine is worked on the double entry system and has furnace ventilation. Three visits were made during the year and on each occasion it was in good condition. Fifteen miners and three day hands are employed under the personal supervision of Mr. Daniel Deihl.

# ROLLING MILL

Is located on the same hill and near the Excelsior mine. It is also a drift opening into the same seam of coal and is operated by Martin Ebersbach. It is worked on the double entry system and is ventilated by means of a small furnace which produces sufficient air for the number of persons employed. On the three occasions which I visited it during the year, it was found in good condition. Twenty miners and four day hands are employed. The product is used at the rolling mill, which is situated in the vicinity. Martin Ebersbach is the superintendent and Val Ebersbach, the mine boss.

# PRACOCK

Is located at Pomeroy and is operated by the Peacock Coal Co. Martin Ebersbach is the superintendent and William Ebersbach, the mine boss. It is a drift opening penetrating the No. 8, or as it is generally known, the Pomeroy seam of coal, which here is four feet in thickness. It is worked on the double entry system and has furnace ventilation. One hundred miners and forty day hands are employed. This is the largest and most modern equipped mine shipping by river in the county. On May 18, while riding between two water boxes being drawn along the Reinhart entry, Michael Weisman, a laborer, was seriously injured by a fall of slate. On May 28, I tested the scales and found them correct. The mine was always found in good condition.

# SILVER RUN

Is located four miles west of Middleport on the line of the C., H. V. & T. R. R. and is operated by W. C. Russell who is also superintendent and mine boss. It is a drift opening made into the No. 8, or Pomeroy seam of coal, which at this point is about three feet, eight inches in thickness. It is worked on the double entry system with furnace ventilation. The number of miners employed varies during the year from fifteen to fifty, the number being controlled by the demands of the trade. Several

visits were made during the year. I found it necessary to request a few minor improvements to be made to conduct the air-current nearer the working faces, but otherwise the mine was found in good condition.

### KINGS

Is located about four miles north of Middleport on the line of the Kanawha & Michigan R. R. It is owned by Thos. King who formerly operated it. It has changed hands during the year and it is now operated under lease by Mason & Sons, under the personal supervision of John Mason. It is a drift opening and is worked on the single entry system. Natural pressure is used as a means of ventilation, this being sufficient as the miners are all working near the surface along an entry that extends through the hill. The opening penetrates the No. 8 or Pomeroy seam of coal, which is about three feet, eight inches in thickness. The mine furnishes employment to sixteen miners and two day hands. It was usually found in good condition.

Following is a list of small mines visited during the year:

Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners	P. O. address.
Dabney	Drift	Kauff Bros	2	Middleport
Diamond		John Michaels	ī	Zitaarepore
Eureka		T. D. Scott	ī	"
Bear		Kauff Bros	i	"
Nye Farm		J. B. Lindsay	6	"
Proida		John Proida	5	"
Springhton		Fick & Thompson	2	" .
Enterprise	"	Gottlieb Bentz	2 2	Pomeroy
Freda	66	Henry Proida	1	"
Crooks	"	James M. Roush	3	"
Bradford	"	O. L. Bradford	2	"
Price	"	Richard Henders'n		"
Forest	"	John Hitchens	2	Minersville
Roush	"	Eli Roush	3	"
Williams	"	John Williams	1	"
Karrs	"	Carr Bros	4	"
Arnold	"	Houdash'lt & Sto't	2	"

# WASHINGTON COUNTY.

Name of Mine.	Kind of opening.	Name of owner or operator.	Number of men.	P. O. address.
Felix	Drift Slope Drift	Hickman&Cowells William Cowells Geo. Lyons John Henderson Henry Ball Ralph Dobbins Arthur Dobbins	5 8 3 2	Coal Run

#### FARMER'S OR CENTRAL

Is located near Byesville, in Guernsey county, and is operated by the Cambridge Fuel Co., under the personal supervision of Walter Smith, who is temporarily in charge, pending the appointment of a superintendent to supercede W. A. Smith, recently deceased. It is a shaft opening about eighty feet deep, worked on the double entry system with fan ventilation. The opening penetrates the Upper Freeport or No. 7 seam of coal, which is about six feet in thickness at this point. One hundred and twenty-five miners and thirty-four day hands are employed. On December 18th I visited it in company with R. M. Haseltine, Chief Inspector of Mines, and District Inspector Miller of the third district, for the purpose of examining the system of making breakthroughs between the working places, a prosecution of the company for violation of section 298 of the mining laws of Ohio being pending upon the examination. It was found that the law applying to breakthroughs was being generally violated, as the breakthroughs between all entries and rooms were being made from ninety to 120 feet apart, the lawful distance being sixty feet. On February 6th I was again summoned by Mr. Haseltine to examine the mine in company with Mr. Miller and Mr. McGough, the resident inspector. On the occasion of this examination we found the practice still in force. Proceedings had previously been commenced against the management and were now being prosecuted through the county of Guernsey, for particulars of which see report of Mr. Haseltine, Chief Inspector of Mines, or of Thos. McGough, resident inspector's account of the case.

# REPORT OF ROBERT H. MILLER,

INSPECTOR OF THE THIRD DISTRICT, FROM NOVEMBER 15, 1895, TO NOVEMBER 15, 1896,

HON. R. M. HASELTINE, Chief Inspector of Mines.

SIR: I herewith respectfully submit my fifth annual report of the mines in the counties of Perry, Muskingum, Morgan and Noble, which embrace the Third Mining District of the state. The period covered is the fiscal year which ended on November 15, 1896. In the four counties which compose the district, I have visited 258 mines. I also visited four mines in Guernsey county, and one each in the counties of Jefferson, Columbiana and Coshocton, making a total of 265 mines inspected by me during the year just closed. Of these, 194 mines have been visited once; forty-five, twice; eighteen, three times; one, four times; three, five times; one, six times; two, seven times; and one ten times, making an aggregate of 387 visits.

The permanent improvements made may be classified as follows. Seven furnaces have been built; three fans erected; nineteen were air-shafts sunk; twenty-two second openings were made, and seven fire-baskets were hung. There were nineteen mines in the district which stood suspended during the entire year; twenty-four mines which were abandoned, and forty-two new mines were opened. During the year twelve sets of scales were tested, all of which were in Perry county. Of these, eight were found to weigh correctly, and four discriminated against the miner. The inaccuracies of two sets were promptly corrected before I left the ground, and an expert was at once sent from the shop to repair the others.

I investigated the cause of three fatal accidents, two of which occurred in my own district, and one was in the fourth district. On February 5th, 1896, at the Riley mine in Coshocton county, George W. Collins was injured by a fall of slate dying from the effects sixteen hours later. February 15th, at Green Hollow mine No. 1, owned by the Wallace Coal Co., in Perry county, Isaac Goodin was killed by a fall of slate, and on May 10th, 1896, Butler McMillen was fatally injured by an ex-



plosion of gas at the Glenwood mine, owned by J. J. Phillips, in Noble county, and died from the effects of the accident, sixteen hours later.

It will be observed that the number of fatal accidents which occurred during the year, has been remarkably small when compared with those of previous years. The coal mines of this district are greatly overcrowded, and the trade remains in a depressed condition greatly to the detriment of both miner and operator. It is to be hoped that the industry will change for the better in the near future.

My relations with all whom my official duty has brought me in contact, have been of the most pleasant character, and in closing I wish to thank them for many favors, and to you especially for your kindly advice, I am especially grateful.

I am, very respectfully,

R. H. MILLER,

SHAWNER, OHIO, November 15, 1896.

Inspector Third District.

# PERRY COUNTY.

#### MINE NO. 8

Is located at Corning on the T. & O. C. R'y. It is the property of the Ohio Central Fuel Co. Mr. C. C. Sharp is superintendent, and J. F. Roberts, mine boss. It is a shaft opening sixty-five feet in depth, made into the No. 6 seam of coal, which is here from ten to twelve feet in thickness. The mine is worked on the double entry system and ventilated by two fans. Three hundred miners and thirty-seven day hands are employed. The coal is hauled from the interior to the shaft-bottom by means of a tailrope. On my first visit, December 3d, I found some bad roof on the east cut-off entry, which I ordered taken down. Five breakthroughs were found open on said cut-off entry, and I ordered four of them closed. The air current was very much broken on the first and second north entries by the frequent opening of a door on the second west entry. To obviate this difficulty, I ordered double doors put up at this point. Most all of the doors and stoppings in this mine were found to be breaking air. I requested Mr. Roberts to have them reclayed and made air-tight. I found the inlet air-way, outside of the first west entry, obstructed, caused by a room caving in. The management was in the act of driving a wide room to strike the air-way again, and to expedite this business, I advised the driving of the place narrow, which Mr. Roberts agreed to do. I also advised that he put two shifts on it. I found a number of deficient steps in the stair-way, which I ordered repaired and gave two weeks to complete the work. On my second visit on January 27th, I found the bad roof taken down and the breakthroughs closed on the east cut-off, and an automatic door put up in the place of the double doors. I also found the obstructed portion of the inlet air-way, outside of the first west entry, reopened. The doors and stoppings were not clayed as ordered. I insisted on this being done. I also requested obstructions cleaned out of the main air-way at the stable. On April 14th, the mine was found idle. On April 15th, it was found idle again, but as the fan was running, I decided to inspect it. I found the inlet air-way cleaned out, which made it possible to walk along it from the bottom of the shaft to the face of the work, which had been impossible for a number of years. The condition of the mine is much improved. On July 27th, the ventilation was deficient, owing to a number of stoppings leaking and the doors that were open underneath. I gave them two weeks to repair doors and stoppings and improve the ventilation. On August 12th, it was found that all orders had been complied with and the mine was in good order. It was visited again on November 10th, and found in very good condition.

# MINE 21

Is situated at Carrington, on the Glouster branch of the T. & O. C. R. R. It is the property of the Ohio Central Fuel Co., and is under the same management as Mine

No. 8, with John H. Wile as mine boss. It is a drift opening, a shaft being used for hoisting purposes. The mine is worked on the double entry system and is ventilated by a fan. The opening is made into the No. 6 seam of coal, which is here ten feet in thickness. One hundred and eighty-six miners, twenty-eight machine men and twenty-six day men are employed. It is a machine mine, the coal being cut by machines run by compressed air. When visited on May 26th, I found a new slope opening had been made, and I was informed that it was their intention in the near future to put in an electric motor and dispense with the hoisting shaft. The mine was found to be in good order. On May 27th, it was visited again to test the scales, but found idle. On June 1st, I tested two sets of scales and found them accurate. On October 29th, I found the new slope opening in operation and equipped with a ten-ton electric motor, which hauls the coal from the interior of the mine to the hoppers where it is dumped by two new steam tipples. The slope and gathering switch in the mine are illuminated by electric lights. The ventilation was deficient on the north side. I gave them until November 2d to improve the condition. On November 2d I found seven new brattices put up since my last visit, and the condition of the mine was much improved, but the ventilation was still deficient on the north side. Mr. Wile said that he would improve it in a short space of time.

# No. 12, SOUTH SIDE

Is situated at New Hamburg, on the Glouster branch of the T. & O. C. R. R., and is operated by the Ohio Central Fuel Co. Mr. C.C. Sharp is superintendent and Thos. Spence, mine boss. It is a drift opening made into the No. 7 seam coal, which is here five feet in thickness. The mine is worked on the double entry system and ventilated by a furnace. Forty miners and five day hands are employed. On February 24th, I found a new furnace built and the mine in good order. On August 17th, it was found suspended.

# RENDS NO. 8

Is situated 'at Rendville, on the T. & O. C. R. R., and is operated by W. P. Rend & Co., of Chicago, Ill. Mr. D. S. Williams is superintendent, and James McLaughlin, mine boss. It is a shaft opening, thirty-five feet in depth. The mine is worked on the double entry system and is ventilated by two tans. The No. 6 seam of coal is here penetrated. Its thickness at this point is twelve feet. Two hundred miners and thirty day hands are employed. The coal is hauled from the interior of the mine to the bottom of the shaft by means of a tail-rope. When visited on December 6th, I found the mine suspended. On February 25th, I was called here to test the scales, but the mine being idle I was prevented from doing so. As the fan was running I made an inspection of the mine, and found the air-way which had been under way so long, driven through between the second and third west entries. The ventilation was deficient on all the entries south of the sixth west, owing to an obstruction between the sixth and seventh west. When the seventh west entry is driven two hundred feet farther, it will connect with a south entry driven from the sixth, which will give the air current a clear passage round the mine; they were driving no entry in the mine at this time. I requested Mr. McLaughlin to drive the seventh entry to make this connection. I was informed that when Mr. Rend was made acquainted with the object, he allowed them to do so. I did not like the way the doors are hung; there is too much space left between the bottom of the door and the rail. I requested them to reduce this space and put curtains on the bottom of the doors. On March 4th I visited it again and tested two sets of scales. The mixed coal scale was found to weigh accurately, but the lump coal scale after the car was moved the first time would weigh light; from nine hundred to two thousand pounds. As I could see no cause I requested them to send to the shop for an expert and have the scale repaired as soon as possible. Before I left they

agreed to give the miner average weight at this point, until the scale was repaired. On April 23d I was informed that the scale was repaired a few days subsequent to my last visit and all is right. I found the seventh west entry stopped again. The miners would not allow the entry men to get ahead of turn. I advised Mr. McLaughlin to change the entry men and keep the entry going steadily, which he agreed to do. On July 28th, the seventh and south entry from the sixth had been connected, five new doors erected, and the mine was found in good order. On October 26th, I found the carpenter putting up three brattices on an entry going south from the seventh to the tenth west entries. I still insisted that the doors be made air-tight at the bottom. When that is done the mine will be in good order.

#### CONGO

Is situated at Congo station on the C., S. & H. R. R., and is the property of the Congo Coal Mining Co. of Columbus. Mr. J. H. Ferguson is superintendent, and J. W. Taylor mine boss. It is a shaft opening forty-three feet in depth. It is worked on the double entry system and ventilated by a fan. The seam of coal which is here penetrated is the No. 6, and the thickness is from thirteen to fourteen feet. The cages are self-dumping, and the mine is equipped with a fine electric plant. The coal is all cut by electric machines; 108 miners, eighteen machine men and thirty-two day hands are employed. On my first visit, December 9th, I ordered a check put up at room eighteen on the first west entry; I also ordered breakthroughs on both sides of room No. 36 on second west entry, and checks put up on both the third and fourth west entries; the breakthroughs are clearer of obstructions than I generally find them. On July 14th, I found all previous orders complied with; I ordered a check put up between forty-five and forty-six rooms on the first west entry where there is a panel of rooms with two solid sides. When that is done, this side will be in good order. Congo east side is the part of the mine on the east side of the shaft and is owned and officered the same as the west side. It is worked on the double entry system and has fan ventilation, and like the west side the coal is cut by electric machines. One hundred and eight miners, eighteen machine men and thirty-two day hands are employed. On December 9th, I found the ventilation very fair in the rooms on this side, but it could be much better were the breakthroughs kept clear. I was informed that the day men unloaded bone coal in the breakthroughs, I ordered that practice discontinued or I would be compelled to stop the rooms until the break-throughs were cleaned out. On July 14th, I ordered a stopping put up in the first room on the second west entry to conduct the air along the face of the rooms. When that is done this side of the mine will be in good order.

XX

Is situated at Shawnee, on the C., S. & H. and B. & O. Ry's. It is the property of Turney & Jones of Columbus, and is operated on the co-operative plan, by a company of miners under the name of the XX Co-operative Coal Co. of Shawnee. David R. Roberts is manager. It is a drift opening made into the No. 6 seam of coal, which is here ten feet in thickness and ventilated by a fire basket. Two hundred and seven miners and twenty-five day hands are employed. The coal is hauled from the interior of the mine to the hoppers by means of a tail-rope. When visited December 7th, the west side had just resumed operation after being suspended since about the 1st of September. I found all the men engaged repairing track. On December 13th. I ordered three brattices put up and one door hung. I found 18,915 cubic feet of air at the furnace and 7,106 cubic feet at the inlet; the remainder was furnished by breaks in the hill, greatly to the injury of the mine. I ordered those openings closed. On February 10th, the ventilation was

still deficient, whereupon I ordered an air-shaft sunk at the face of the work, and a furnace built. On April 16th, I found the old furnace had caved in and there were two hundred and twenty-five men in this side of the mine, all of whom were depending on ventilation being produced by natural causes. They were, however, making a faint effort at sinking an air-shaft. As the boss paid no attention to the orders of the Inspector, I wrote Mr. Ferguson, who is Mr. Turney's superintendent, informing him that the mine must be put in a lawful condition. On April 25th, the mine was idle, except the men at work in the air-shaft. On May 4th, I found they had just timbered the air-shaft, and had built a stack on the top and were making a fire basket. On my visit June 15th, I found that they had moved a number of their men to the east side of the mine, but there were still 104 men on the west side, and only 7,800 cubic feet of air passing at the outlet, the only place that the current could be measured. There were a number of stoppings found to be leaking which I ordered repaired. On the September 17th visit, I found 4,800 cubic feet of air traveling to supply 105 men. I advised that the bottom of the air-shaft be lined with a brick wall with a view of preventing the coal and timber from igniting, also that they put in a larger fire basket. Knowing that the miners could not be moved to do anything, Mr. Haseltine, the chief inspector, and I visited Mr. Turney at his office in Columbus and informed him of the situation, and what we wanted done with this air shaft; whereupon he wired his superintendent, Mr. Ferguson, to meet the Inspector at the mine and do as he directed. On September 21st, I found seven rooms on the second east entry had been driven in from thirty-five to eighty-eight yards without any break-throughs on either side. Turney and Jones refused to pay for making them, and the miners refused to make them without remuneration. On this visit I still found the break in the hill open adjacent to the fire basket. Superintendent Perguson met me here at this time and agreed to cut out the coal around the air shaft and line the bottom with brick, also to put in a larger fire basket. On October 14th, I found that the bottom of the air shaft had been lined with brick, but the fire basket had not been enlarged, and that the surface break in the hill adjacent to the fire basket was still open. This was the third occasion on which I had found this hole open, and the mine boss always claimed that he did not know of it. The east side is worked in connection with the west side; the coal is being hauled by the same rope and run over the same hoppers. It is owned and officered by the same company. This side of the mine is worked on the double entry system and is ventilated by a fan. It was visited December 7th and April 16th, and found suspended on both dates. It was visited again on June 15th, when it was found to have just resumed operations. Eighty men were moved into it from the west side. They had just put in a new rope and removed the water from one pair of entries. The fan is an exhaust. I found the top of the fan house open thus feedin the fan with air. This I ordered made air-tight. On my fourth visit on September 17th, I found the air current on the first east entry heavily charged with black damp, owing to the fan having been inactive for a few days. A new air shaft had been sunk on the No. 6 entry and a boiler and pump placed at the bottom of it. The condition of this side The shaft was acting as an outlet for the air. would be much improved if there were three splits made in the main air current, but it is very doubtful, under the circumstances, if this will ever be done. This, without doubt, is one of the most unlawfully conducted mines in the state. Owing to the scarcity of work and the general depression sion in business, the Department has been disposed to throw the mantle of charity over these people although it has had just cause at any time during the past year to shut the mine up. There are a number of the miners who claim the privilege of killing themselves if they please, and there are others who would curse the Inspector for prohibiting them from committing self-destruction. If this is to be the result of co-operation, I pray to be delivered from it in the future. Digitized by Google

#### ново

Is located near New Hamburg on the Glouster branch of the C., S. &. H. R. R., and is operated by the Superior Coal Co. L. C. Tippett has entire supervision. It is a drift opening made into the No. 7 seam of coal, which is here four and one half feet in thickness. It is worked on the double entry system and ventilated by a fire basket. Thirty-five miners and six day hands are employed. It was visited June 30th and September 14th and found idle on both these dates. It was visited again on October 28th, and found in good order.

#### HEMLOCK

Is situated at Hemlock, on the C., S. & H. R. R., and is the property of the Hemlock Mining Co., of Columbus. Mr. J. H. Ferguson is superintendent and F. B. McGrew, mine boss. It is a new shaft opening twenty feet in depth made into the No. 6 seam of coal, which is here six and one-half feet in thickness. When visited May 7th, it was then known as Glendale and operated by the Wallace Coal Co., of Redfield. There was a slope sunk for a traveling way and second opening. The engine shutes scales, and screens were all in place, but there was no iron on the switch; the work was well done. On October 19th the iron was laid on the switch and the mine was being operated by the Hemlock Mining Co. Nine miners and two day hands are employed. There was a new air shaft sunk, into which was placed an open fire as a means of ventilation. The coal is cut by an electric machine and the mine is in very good order.

# NO. 20

Is situated at Hemlock, on the Glouster branch of the C., S. & H. R. R. and is operated by the Columbus and Shawnee Coal Co. C. G. Kern'is superintendent and Pearl Barrell, mine boss. It is a slope opening made into the No. 6 seam of coal, which is here six and one-half feet in thickness. It is worked on the double entry system and ventilated by a fan. Eightytwo miners and fourteen day hands are employed. The coal is hauled from the interior of the mine to the bottom of the slope by a tailrope and afterwards hoisted by another engine to the tipple. On my first visit May 7th, the mine was suspended. On July 18th, I found a part of the air way on the fourth left cut-off closed. They were driving a wide place from both sides for the purpose of making another air-way. This they expected to break through when they had driven fifty feet more, which would require about two weeks. I wrote Mr. Kern informing him that he must drive that place narrow as I learned that the men were suffering for want of air. I understood afterward that the order was complied with. On my next visit, October 20th, I found the mine in the hands of Mr. J. B. Hamilton, of Columbus, who had been appointed receiver. The ventilation was found deficient, owing to a door having been broken down and a number of stoppings were out of order. These I ordered repaired as soon as possible, and when done, the mine will be in good order.

### SHAWNER VALLEY

Is situated at Shawnee, on the C., S. & H., and the B. &. O. Ry's. It is the property of the Shawnee Valley Coal and Iron Co., but is now operated by a company of miners under the name of the Valley Co-operative Coal Co. Samuel Phillips is superintendent and Wm. Davis, mine boss. It is a drift opening made into the No. 6 seam of coal, which is here ten feet in thickness. It is worked on the double entry system and is ventilated by a furnace. One hundred and twenty miners and nineteen day hands are employed. It has a fine system of endless rope haulage. When visited February 26th, I found the ventilation deficient. The anemometer would

not register on the fifth and sixth west entries. I gave them four weeks in which to get air into this mine. On May 5th, I found three places in the first entry outside of the air shaft, full of black damp. I brought the men out and ordered the places stopped at once. On July 6th, I tested the scales and found that it took nearly eight hundred pounds to move the beam from the bottom to the top of the slot. As the beam worked so sluggishly, I requested them to clean off the bearings and try my weights again, and if they were found no better, to send to the shop for an expert and have them repaired. I was informed that they secured a man from the shop and had them fixed. On August 28th, I found the ventilation deficient and requested them to improve it at once. On September 4th, I found brattices built and stoppings repaired and the condition of the mine much improved.

#### FURNACE NO. 2

Is situated at Shawnee, on the B. & O., and C., S. & H. Ry's. It is the property of Gosline & Barbour of Toledo, and is operated by a company of miners under the name of the Shawnee Co-operative Coal Co. Fred Hammond is manager. It is a slope opening made into the No. 6 seam of coal which is here five feet in thickness. It is worked on the double entry system and ventilated by a large fire basket. Seventy miners and eight day hands are employed. The coal is conveyed from the interior of the mine to the hoppers, a distance of 2,700 feet by means of an endless rope. On December 2d, I tested the scales and found them accurate. On February 27th, the mine was found in good order. On October 13th, the ventilation was found deficient on the eighth and ninth west entries. I found one door partly broken down, and a number of stoppings out of order. I ordered these repaired as soon as possible.

# UPSON NO. 1

Is situated at Shawnee, on the C., S. & H., and B. & O. R'ys, and is operated by the Upson Coal and Mining Co. Reese E. Williams has entire supervision. It is a drift opening made into the No. 6 seam of coal, which is here ten feet in thickness. It is worked on the double entry system and ventilated by a furnace. Eighty-seven miners, ten machine men and twenty-two day hands are employed. The coal is cut by machines which are operated by electricity and the coal is hauled from the mine by an electric motor. It was visited on February 28th, and found in good order. On September 11th, the ventilation was found deficient on the Ellis entry, owing to two doors that were without trappers. I ordered that trappers be put at the doors or make it a special duty of the drivers that they shut the doors after they pass through them. In other repects, the mine was in good order. On November 9th, I tested two sets of scales. The large track scales weighed accurately, but the small platform scales which are used for weighing run of mine coal, were badly clogged and the track rails were found to be binding at both ends. I had them clean the scales so that they worked freely, also to drive the track rails back to their proper places, where the scales weigh correctly.

#### XX FURNACE

Is situated at Shawnee on the B. & O. R. R. and is operated by Taylor, Williams & Co., of Columbus. D. C. Jenkins has entire supervision. It is a drift opening made into the No. 6 seam of coal, which is here ten feet in thickness. The work is mostly pillars and stumps. It has natural ventilation. Forty-five miners and four day hands are employed. It was visited on June 22nd. The hill where the mine is located is in the shape of a mound and surrounded by six openings all of them driven to the surface. The air is fairly well distributed. On August 25th, I found this mine idle. At this time I tested their scales and found them accurate.

# IRON POINT NO. 1

Is located near Shawnee on the B. & O. R. R., and is operated by a company of miners under the name of the Iron Point Low Vein Coal Co. Limited, of Shawnee. John Pritchard is the manager. It is a drift opening made into the No. 6 seam of coal, which is here five feet in thickness. It is worked on the double entry system and is ventilated by a fire basket. Thirty-two miners and four day hands are employed. The coal is let down over an incline by means of a drum and wire rope to the tipple. On February 29th, the mine was idle. On September 12th, John Cox was acting as manager. The mine was doing very little but was in a fair condition.

#### NO. 3

Is located on the Rock Run branch of the B. & O. R. R., and is the property of the Columbus and Hocking Coal and Iron Co., of Columbus. Mr. E. B. Pedlow is superintendent and Hugh Dalrymple, mine boss. It is a drift opening made into the No. 6 seam of coal, which is here from ten to twelve feet in thickness, and worked on the double entry system, ventilated by a fan. Two hundred and forty-three miners, eight machine men and forty day hands are employed. The coal is cut by electric machines and hauled from the interior of the mine to the tipple by means of a tail-rope. It was visited on January 30th, and found in excellent condition. On July 29th, I found the mine in good order. They had extended the tail-rope a distance of fifteen hundred feet. On August 18th, I visited the mine and posted notices forbidding the men to travel on the rope road while traveling to and from their work. On October 30th, the mine was found in excellent condition.

# NO. 3A

Is situated in close proximity to No. 3 and is owned, operated and officered by the same company. It is a drift opening made into the No. 6 seam of coal, is worked on the double entry system and is ventilated by a fan. Forty-five miners and eight day hands are employed. On January 30th, I found they had placed a fan in the mine. On July 29th, they had made arrangements to run the tail-rope of Mine No. 3 into this opening on alternating trips. On October 30th the mine was found in excellent condition.

# NO. 69.

Is located on the Rock Run branch of the B. & O. R. R., and is operated by Call Hughes & Co. Ed Call is superintendent and Thomas McTague, mine boss. It is a drift opening made into the No. 6 seam of coal which is here ten feet in thickness. It is worked on the double entry system and ventilated by a fire basket. Twelve miners and one day hand are employed. On July 3d I found they had sunk a new air shaft, and the mine though idle, was in good order. On November 13th, they had placed a fire basket in the shaft for ventilation and the mine was in very good order.

# BLACK DIAMOND NO. 2

Is located on the Rock Run branch of the B. & O. R. R. and is operated by the Black Diamond Coal Co. of New Straitsville. David Williams has entire supervision. It is a new drift opening made into the No. 6 seam of coal which is here ten feet in thickness. The mine is worked on the double entry system and has natural ventilation. Fourteen miners and one day hand are employed. It was visited on January 18th, when it was found that they had sunk an air shaft. It was visited again on July 16th and found in good order.

# DICKSON SOUTH SIDE

Is situated at Dicksonton on the Shawnee branch of the B. & O. R. R. and operated and owned by J. C. Hamilton, of Newark. J. M. Foreman is superintendent and H. R. Larimer, mine boss. It is a drift opening made into the No. 6 seam of coal which is here three feet in thickness. The entries are all driven single which are parallel by an air way. The mine is ventilated by a fire basket. Sixty-three miners and eleven day hands are employed. The coal is lowered to the tipple over an incline by means of a drum and wire rope. When visited on June 29th they had placed a fire basket in the air shaft. I found several brattices leaking which I ordered repaired. Mr. Larimer promised to place another fire basket in the shaft. On November 14th, all previous orders had been complied with and the mine was in good order.

# BRISTOL NO. 1

Is located at Bristol Junction on the Shawnee branch of the B. & O. R. R., and is operated by the Bristol Coal Co. S. W. Butt is superintendent and Jacob Keck, mine boss. It is a drift opening made into the No. 6 seam of coal which is here three feet in thickness. It is worked on the double entry system and is ventilated by a furnace. Thirty-one miners and three day hands are employed. hauled from the interior of the mine to the tipple by means of a tail-rope. On April 17th I was called to this mine by Mr. Butt who informed me that his miners had struck on him owing to an insufficiency of air. Mr. Butt had not been in the mine for some time and believed it was in much better condition than it was found. Only 789 cubic feet of air were found passing at the face of the entry. The only cause for this that I could see was that the stoppings were all leaking. Mr. Butt decided to put men on to repair the stoppings and thought that in a few days he could improve its condition. On April 22d the mine was still idle. I found some men cleaning out the inlet air way with a view of improving the ventilation. On May 6th the mine was found idle, but I requested a fire built for the purpose of making an inspection. I found eight slate stoppings replaced with board brattices all well clayed, besides one new door had been hung. At points where my instrument would not register on the previous visit, I found 2,995 cubic feet of air traveling. On September 15th the mine was found idle. The fire in the coal, which had ignited from the furnace, had been extinguished. I believe this misfortune will result in an improvement in the ventilation, as previous to this the arch was small and when the coal thus burned out by the side of the arch is removed, it will give more space for the air to pass. Twelve feet have been added to the stack. G. C. Butt has taken charge as mine boss. On October 27th the mine was found idle.

# BRISTOL NO. 2

Is worked in connection with Mine No. 1, the coal being hauled over the same tipple. It is operated and officered by the same company as No. 1. It is a drift opening made into the No. 6 seam of coal which is here three feet in thickness. It is worked on the double entry system and is ventilated by a fire basket. Twenty-two miners and three day hands are employed. They have a fire basket in the shaft. It was visited on April 22d, September 15th and October 27th, and found idle at each visit.

# BRIAR HILL

Is located at Prosper Station on the C., S. & H. R. R. and operated by Underwood & Newlon. J. G. Underwood is superintendent and Joseph Luke, mine boss. It is a slope opening made into the No. 6 seam of coal which is here three feet, eight inches in thickness. It is worked on the double entry system and is ventilated by

35

a small furnace. Twelve miners and one day hand are employed. On May 28 it was found idle. It was visited again on July 15. It was half past eight o'clock before there was sufficient air at the little furnace to turn the anemometer. I ordered a fire kept in the furnace over night and a check put up between the first two rooms on the main west entry.

#### STAR

Is situated near Crooksville on the C., S. & H. R. R., and is operated by Morgan & Tandy. L. R. Morgan is superintendent and James Tandy, mine boss. It is a drift opening made into the No. 6 seam of coal which is here four feet in thickness. It is worked on the double entry system and ventilated by an open fire. Sixteen miners and one day hand are employed. It was visited on January 17th, when I tested the scales and found them accurate. I found the face of the entry one hundred feet in advance of the inside breakthrough. I ordered a breakthrough made as soon as possible. It was visited again on July 9th when it was found that Morgan and Tandy had given it up and the mine was suspended.

# GREEN HOLLOW NO. 1

Is located in Green Hollow, near Redfield, and is operated by the Wallace Coal Co. William Wallace is superintendent and George Wallace, mine boss. It is a drift opening made into the No. 5 seam of coal which is here four feet in thickness. It is worked on the double entry system and ventilated by a furnace. Twenty-three miners and four day hands are employed. I visited it again on February 15th, to inquire into the cause of the death of Isaac Goodin. It was found that on Saturday February 15th, 1896, in company with Edward Moore and Andrew Harris, he had been working in one of the openings of this mine drawing pillars by contract. They were at work about two hundred feet from the entrance to the mine and had just fired a shot in the entry pillar after which they loaded a car of coal. When the car was loaded they concluded they heard the top cracking and decided to go out after props. These they brought in a car while Mr. Moore stayed behind to eat a lunch. Mr. Goodin and Mr. Harris had run the car into the face and began working on the coal. When Mr. Moore came in, he asked why they did not set the props. Then they began to prepare a place to set them and while they were thus engaged, the slate fell, killing Mr. Goodin instantly, and slightly injuring Mr. The piece that fell on them measured nine by fourteen feet and four inches in thickness. On June 24th I again visited the mine and found the ventilation deficient and ordered the brattices and curtains repaired and one door erected.

#### C. & E.

Is located near Redfield on the C., S. & H. R. R., and is operated by C. A. Dean, who has also entire supervision. It is a slope opening made into the No. 5 seam of coal, which is here from three to four feet in thickness. It is worked on the single entry system and is ventilated by an open fire and the steam discharged from the pump. Twelve miners and four day hands are employed. It was visited on June 23d when the mine was found in fair condition. The coal is hauled from the interior of the mine, a distance of 1,610 feet, by means of a drag-rope. The cars and rope are pulled back into the mine by a mule.

# CHESTNUT RIDGE

Is located near Redfield on the C., S. & H. R. R., and is operated by A. P. Simons, of Redfield, who has entire supervision. It is a drift opening made into the No. 5 seam of coal which is here three and one-half feet in thickness. It is worked on

the single entry system and has natural ventilation. Twenty-three miners and four day hands are employed. It was visited on June 25th when the face of the entry was found to be eighty-six feet in advance of the end of Ben Harris' room, which is calculated to be the air way. Four men besides the entry man were working inside of the last breakthrough. The small amount of air that was traveling was heavily charged with black damp. I was afterwards informed that the entry man, only worked when the mine was idle. They were driving this entry to break through to an old mine for the purpose of securing better ventilation. I advised Mr. Simons to drive it day and night for the purpose of hurrying it through, which he agreed to do.

# No. 5

Is situated at New Straitsville on the C., H. V. & T. R. R., and is operated by the Troy Coal Co. James Daugherty is superintendent and Harry Holland is mine boss. It is a drift opening made into the No. 6 seam of coal which is here ten feet in thickness. The work is principally drawing pillars, and the mine has natural ventilation. It was visited on July 3d, when the ventilation on an entry known by the name of Bugger hole was found deficient. I ordered a breakthrough made to connect with another entry driven from the surface, which is calculated to improve the ventilation.

# NO. 139

Is located near New Straitsville on the C., H. V. & T. R'y and is operated by the Great Vein Coal Mining Co. Samuel Rush is superintendent and Pat McGinnely, mine boss. It is a drift opening made into the No. 6 seam of coal which is here ten feet in thickness. The work is principally drawing pillars and the mine has natural ventilation. On my first visit, July 10th, twenty-eight miners, two inside and three outside day hands were employed. The mine was in fair condition. On November 12th I found that the old No. 11 fire had broken out one week previous to my visit. Sam Butler is superintendent. On November 18th I visited the mine again by request of the miners who desired me to examine the condition of the fire, but I could not get to it as the miners had bratticed the entry on both sides of the fire. I appealed to Mr. Elliott, of the Elliot Paper Co., of Zanesville, who owns the real estate, for means to control the fire

# INO. 75

Is situated near New Straitsville and is operated by the Padden & Fahey Coal Co. T. E. Padden is superintendent and Samuel Achauer, mine boss. It is a drift opening made into the No. 6 seam of coal, which is here ten feet in thickness. It is worked on the double entry system and has natural ventilation. On July 1, there were forty-five miners, one inside and two outside day hands employed. The mine was in fair condition. The coal is conveyed from the mine to the tipple, a distance of 3,300 feet, by means of a small locomotive. On November 11th I found the old opening abandoned. The men were making a new opening 100 yards from the old. I was informed that the cause for abandoning the old opening was, owing to the trestle not being safe to run the locomotive over.

#### NO. 49

Is located at New Straitsville I and is operated by Alexander & Co. of New Straitsville, and is managed by William Alexander. It is a drift opening made into the No. 6 seam of coal which is here ten feet in thickness. The mine is worked on the double entry system and has natural ventilation. Thirteen miners are employed. It was visited on July 2d and found in good order.



#### NO. 35

Is situated at New Straitsville on the C., H. V. & T. R. R. and is operated by James O'Donnell, who is also manager. It is a drift opening made into the No. 6 seam of coal which is here ten feet in thickness. It is worked on the single entry system and has a furnace for the purpose of drawing the black damp out of the old works, but the mine is generally dependent on natural ventilation. Nine miners, one inside and one outside day hand are employed. When visited July 2d, the mine was found in good order.

#### NO. 37

Is situated near New Straitsville on the C., H. V. & T. R. R. and is operated by C. Essex who is also superintendent, and H. H. Essex is mine boss. It is a drift opening made into the No. 6 seam of coal which is here ten feet in thickness, worked on the double entry system and ventilated by a furnace. Thirty miners, one inside and two outside day hands are employed. It was visited on July 10th and November 12, and was found in good order on both dates.

# LYONSDALE

Is located at the tunnel, two miles west of McLuney, on the C. & M. V. R. and is operated by M. Meenan, who is also manager. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the double entry system and has furnace ventilation. Fifteen miners, three inside and one outside day hand is employed. When visited July 8th, the ventilation was deficient at the face of the work. I found a number of stoppings leaking which I ordered repaired.

# BLOCK

Is situated one mile west of McLuney on the C. & M. V. Ry. and is operated by Tague and Bennett. Charles Tague is superintendent and Lon Tague is mine boss. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on both double and single entry systems and has furnace ventilation. Thirty-eight miners, three inside and three outside day hands are employed. When visited July 8th, I found part of the mine changed to the single entry system. Several doors and stoppings were leaking which I ordered reclayed. When that is done, the mine will be in good order.

# BRECH GROVE NO. 6

Is situated at McLuney and is the property of I. H. Jones of Zanesville, and is now operated by a number of miners under the name of the Eagle Coal Co. Marion Young is general manager. It is a drift opening made into the No. 6 seam of coal, which is here three and one-half feet in thickness. It is worked on the single entry system and has furnace ventilation. Twenty-five miners, two inside and one outside day hands are employed. When visited July 9th, I found several stoppings leaking which I ordered repaired. When that is done, the mine will be in good order.

# LOWER

Is situated near Crooksville on the C. & M. V. R. R. and is operated by Tague Bros. & Co. A. P. Tague is superintendent and E. J. Tague is mine boss. It is a drift opening made into the No. 6 seam of coal, which is here three and one-half feet in thickness. It is worked on the double entry system and has furnace ventilation. When visited November 27th, thirty miners, four inside and two outside day hands

were employed. I tested their scales and found them accurate. When visited January 16th and July 31st, the mine was found idle.

# zanesville no. 1

Is situated near Crooksville on the C. & M. V. R. R., and is operated by the Zanesville Coal Co. of Zanesville. O. F. McKinney is superintendent and N. W. Spencer, mine boss. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the double entry system and is ventilated by a furnace. Ninety-four miners, six inside and five outside day hands, are employed. On January 16th I was called to this mine by the miners who complained of the ventilation, and that the doors were not properly attended. I found 7,892 cubic feet of air per minute entering the mine from the seventh west entry which had been abandoned, thus supplying the furnace with that much useless air to the injury of that portion of the mine that was working. I ordered that inlet shut off; I also found a number of stoppings leaking between the entries and all of the doors were dragging on the rail and were not provided with trappers. I ordered all doors made self-shutting and trappers placed at them and all stoppings made air tight. On January 28th, the mine was found idle. I tested scales and found that the beam worked too sluggishly to be accurate. We shortened the extension rod and when I left, the scales weighed correctly. On July 31st, the mine was found idle. There was no fire in the furnace.

#### HART

Is located at Crooksville on the C. & M. V. R. R., and is operated by the Crooksville Coal and Sand Co. Fred. Young has entire supervision. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the double entry system and has furnace ventilation. Thirty miners, four inside and two outside day hands are employed. The coal is lowered over an incline by means of a drum and wire rope to the tipple. When visited January 17th I found the first room on the second east entry driven in 234 feet and no way provided for ventilation. I ordered a check put up between the first and second rooms to conduct the air into the face. On July 9th, I found a second opening made through the hill which had flooded the mine with water. They had been pumping water over one week and it was not near out on this date.

# UNION

Is situated one and one-half miles from Crooksville on the C. & M. V. R. R., and is operated by the Ohio Coal & Cement Co. of Columbus. David Matthews is superintendent and Charles Conn, mine boss. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the double entry system and has furnace ventilation. Sixteen miners, two inside and one outside day hands are employed. When visited on July 9th, it was found idle.

# NEW CRESCENT

Is located near Roseville on the C. M. & V. R. R., and is operated by the New Crescent Mining Company of Roseville. H. H. Guy is superintendent and Wm. Reed is mine boss. It is a drift opening made into the No. 6 seam of coal, which is here four feet in thickness. It is worked on the double entry system and has furnace ventilation. Fourteen miners, one inside and one outside day hand are employed. It was visited June 26th and found idle

# EXECUTIVE DOCUMENTS.

# The following is a list of small mines employing less than ten men:

Name of mine.	Kind of opening.	Name of owner or operator.	Number of men.	Post office address.
Hazeltons	Drift	Spencer & Hazelton	4	New Strait'v'le
Bl'k Diamond No. 1	"	Black Diamond Coal Co	6	"
Butler No. 3	"	John Butler.	6	New Lexingt'n
Clover Hill	*******	W. D. Hamilton	•••••	Zanesville
Eagle No. 33	"	Crawford & Gaver Bros Faine & Bodamer	4 4	McCuneville
Nugent No. 3	44	Jacob Hammond	4	New Strait'v'le Lancaster
Nugent No. 6	"	" "		Mancaster
Tom Green	"	Tom Green	2	Somerset
Acker No 1	"	O. J. Acker		"
Acker No. 2	"	tř ví	2	"
Randolph	16	Mrs. North		Rehobeth
Jos. Green	"	Mrs. Jos. Green	2	Somerset
Fink	"	Edgar Fink	3	
Chestnut Hill No. 1		James Coyle		Redfield
Chestnut Hill No. 2	"	Wallace Coal Co	2 3	"
Chicago Co-operative	"	Martin & Roan	_	New Strait'v'le
No. 51	"	Watkins & Co	-6	"
No. 37 West	"	C. Essex		"
Yost	Slope	A. J. Yost	2	Somerset
Flowers	Drift	Lewis Flowers	3	•6
Butler No. 1	"	John Butler		New Lexingt'n
John Green	*******	John Green	2	Somerset
No. 19	Shaft	Ohio Central Fuel Co	• • • • • • • • • • • • • • • • • • • •	Columbus
Spring Valley No. 11	Slope Drift	M. Cox & Co	4	New Strait'v'le
No. 7	"	White & Thomson	8	Mew Strait vie
No. 47	"	M. Wilson & Sons	0	"
No. 47 A	"	"	8	"
No. 77	"	Stewart Coal Co	7	"
No. 9	"	Emerick & Powell	2	"
No. 39	"		2	"
No. 45	********			"
Howe		Geo. Howe	$egin{array}{c} 2 \ 2 \end{array}$	
Phillips Roger's No. 1	"	Thos. Phillips	z	Shawnee
Roger's No. 2	"	" "	6	New Lexingt'n
Davis	.,	Davis Mining Co		Redfield
Green Hollow No.4	"	Maple Hill Coal Co	6	"
[rvin	"	Rinhart & Woods	5	New Lexingt'n
Zanesville No. 2	"	Zanesville Coal Co	5	Zanesville
Thacker	"		5	New Lexingt'n
Dew	*******		2	Glouster
Martin	*******	Gen. Edley	2 3	New Strait'vl'e
Fahey Ohio No. 1	"	Fahey Coal Co	3	Shawnee
		Clay Mines.		
Ohio No. 2	"	Ohio Mining & M'f'g Co.	5	Shawnee
		,, 3		
Ohio No. 3	"	Rogers, McDonald & Co.	5	New Lexingt'n

# MUSKINGUM COUNTY.

#### BLUE ROCK

Is situated at Stone's Station on the Z. & O. R. R., and is operated by the Blue Rock Coal Co. E. J. Souders has entire supervision. It is a slope opening made into the No. 7 seam of coal which is here four feet in thickness. It is worked on the single entry system and ventilated by a furnace. Twenty-five miners, three inside one outside day hand are employed. When visited December 11th there was a pinch out of the coal on the left side of the new entry, and owing to the old work still skirting them on the right side, prevented them from increasing the number of men in this part of the work. I visited it again on May 14th, in company with Mr. Haseltine, the Chief Inspector, and found that they had abandoned the old works entirely. We requested them to make a clear air way from the main entry to the face of the new entry, and shoot the top in the swale on the return air way from the end of the new entry back to the furnace, and gave them thirty days to complete it. On June 18th, I visited it again to see what progress they had made with the improvements. I found the return air way cleared out from the end of the entry back to the furnace, but I discovered a narrow neck in the inlet air way of only thirteen square feet area. I ordered that made larger. I also found the air current weak at the face of the entry. On the return I found a number of stoppings leaking, which I ordered repaired

# GARRETT

Is located near Sealover Station on the Z. & O. R. R., and is operated by Joseph Garrett, who is also superintendent; with A. E. Garrett, mine boss. It is a drift opening made into the No. 6 seam of coal which is here three feet in thickness. It is worked on the single entry system and has furnace ventilation. Twenty-two miners and one day hand are employed. When visited on April 28, I found a new furnace built. They had also built a new tipple and had discontinued the use of the incline. The ventilation was deficient at the face of the work. I found two stoppings leaking and the end of the first west entry standing partly open. I ordered the stoppings reclayed and a door hung on the end of the first west entry and curtains hung on five room ends.

# NEFF

Is situated in Coal Hollow near Sealover's Station on the Z. & O. R. R., and is operated by J. R. Andrews of Zanesville, who is also superintendent. W. J. Green is the mine boss. It is a drift opening made into the No. 6 seam of coal which is here three feet in thickness. It is worked on the single entry system and has furnace ventilation. Nineteen miners are employed. The entry was driven through the hill, and the end of it was standing partly open which served as an inlet, the air going direct to the furnace and hence was of no benefit to the men. I ordered the end of the entry closed up, also one breakthrough closed on the south entry and another made and a curtain hung on the room ends.

# PRINCESS

Is situated in Coal Hollow near Sealover Station on the Z. & O. R. R., and is operated by McCoy and Thompson of Zanesville. R. G. Thompson is superintendent and Cameron Thompson, mine boss. It is a drift opening made into the No. 7 seam of coal which is here six feet in thickness. It is worked on the double entry system and has furnace ventilation. Thirty-eight miners, five inside, and three outside day hands are employed. On June 12th, the mine was found in very good order. I visited it again on September 23d, by request of the company, who informed

me that part of the mine had been on a squeeze. After a general inspection I concluded that the squeeze was checked, and no further damage was liable to occur.

#### EAGLE

Is located near Buckeye Station on the Cannellville branch of the C., S. & H. R. R. and is operated by R. G. Thompson of White Cottage, who is also superintendent. Chas. O. Harris of the same place is the mine boss. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the single entry system and has furnace ventilation. Fourteen miners and one day hand are employed. When visited April 28th, it was found idle. It was visited again on September 23d, when it was found in fair condition.

#### GRANGER

Is situated near Buckeye Station on the Z. & O. R. R., and is operated by the Siler Coal Co. John Winefordner has entire supervision. It is a new drift opening made into the No. 6 seam of coal, which here is three feet, ten inches in thickness. It is worked on the double entry system and has furnace ventilation. Twenty-eight miners and two outside day hands are employed. The coal is lowered over an inclineaby means of a drum and rope to the tipple. When visited June 11th, they were sinking an air shaft but the iron was not yet put down on the switch. It was visited again on August 19th, when I found the air shaft sunk and a furnace built. The mine is in very good order.

#### FRANKLIN

It is located one mile from Cannellville on the C., S. & H. Ry. It is the property of the Columbus and Brush Creek Coal Co. and is operated by Mauk and Ballou of Dillon. R. B. Mauk has entire supervision. It is a drift opening made into No. 7 seam of coal which is here four and one-half feet in thickness. It is worked on the double entry system and has furnace ventilation. Twenty-five miners, four inside and two outside day hands are employed. It was visited on June 9th, when I found the air shaft sunk and a furnace built and the mine in good order.

# EAST HILL

Is located near Cannellville on the C., S. & H. R. R. and is operated by A. D. Morrison of Stovertown. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the single entry system and has furnace ventilation. Nine miners and one day hand are employed. When visited June 10th, the mine was found in good order.

# CANNELVILLE

It is situated at Cannelville on the C., S. & H. R. R., and is operated by McNally & McDonald. John McNally is superintendent, and J. W. McDonald is mine boss. It is a drift opening made into the No. 6 seam of coal which is here four feet in thickness. It is worked on the double entry system and has furnace ventilation. Seventeen miners, one inside and one outside day hand are employed. When visited on June 9th, I found a curtain partly pulled down between the inlet and return airways, which I ordered repaired. In all other respects the mine was in fair condition.

# WALNUT HILL

Is located at Cannelville on the C., S. & H. R. R., and is operated by the Walnut Hill Coal Co. John E. Webster is superintendent and Elias Kincheleo, mine boss. It is a drift opening made into the No. 6 seam of coal which here is three and one-half feet in thickness. It is worked on the single entry system and ventilated by a furnace. Ten miners are employed. When visited April 2nd, the miners were on a strike, and the mine was idle. It was visited again on June 10th, when the mine was again found idle. They were building a new trestle to the chutes.

# DIAMOND NO. 2

Is situated at Romine Station on the B. Z. & C. R. R., and is operated by C. W. Joslin of Zanesville. H. N. Hauk has entire supervision. It is a drift opening made into the No. 7 seam of coal which here is six feet in thickness. It is worked on the double entry system, and has furnace ventilation. Thirty miners, two inside and two outside day hands are employed. When visited July 7th, the mine was in very good order.

#### KINGS

Is located one mile from Gilbert Station on the C. & M. V. R. R., and when visited March 9th was operated by Price and Mautz of Zanesville, with Wm. Price manager. It is a new drift opening made into the No. 6 seam of coal which here is two feet, ten inches in thickness. It is worked on the single entry system and has natural ventilation. Twelve miners, one inside and one outside day hand are employed. The coal is lowered by means of a drum and wire rope over an incline of 320 feet in length to the tipple. The mine was found in fair condition. When visited on September 22nd I found the mines suspended. I was informed that Mr Price had eloped and the mine was supposed to then be in the hands of Mr. Robert Hines of Zanesville. It was never run in his name. On November 6th it was operated by the Davis Bros. of Redfield, under the name of the Davis Coal and Clay Co. of Gilbert. B. J. Davis is superintendent and W. H. Davis, mine boss. They have shot down the top, dug a ditch and have loaded some coal and are now ready to resume operations in full, as soon as they get a sufficient number of miners.

# HARPER'S FOUR FOOT

Is situated in the sixth ward of Zanesville, and is the property of Eben Harper, who is also superintendent, and Mr. Wm. C. Morgan is mine boss. It is a drift opening made into the No. 5 seam of coal which is here four feet in thickness. It is worked on the single entry system and has furnace ventilation. Twelve miners and one day hand are employed. When visited November 19th some slate had fallen at the furnace and a pile of ashes were lying in front of it, which I ordered removed. I also found a door broken down at the ninth entry which had been hung on the wrong side of the frame. I ordered the door hung in proper position and made air tight, also that two stoppings be reclayed and made air tight. I gave them two weeks to make these improvements. On November 26th I found all the orders complied with and they were then endeavoring to open the trunks to drain the entry. On August 6th it was found suspended.

#### LEHEW

Is situated on Mill Run near Zanesville, and is operated and managed by Geo. M. Lehew. It is a drift opening made into the No. 6 seam of coal which here is three feet in thickness. It is worked on the single entry system and has furnace

ventilation. Ten miners who employ fourteen dogs, produce the coal. When visited May 1st, the mine was in good order. On October 2nd, Mr. Lehew informed me that the water trunk had caved in consequently they had to put the fire out of the furnace, in order to repair the trunk, and as a result the ventilation was complained of. Owing to the location of the check curtain, the air had to travel through a number of old rooms before reaching the miners. I requested Mr. Lehew to place the check curtain between the two outside rooms which were working. On October 21st the curtain had not been moved. I ordered the check curtain moved at least one hundred and fifty yards farther in the entry and all room ends closed on the right hand side of the entry going in, between the inlet and return as far in as the check curtain, and gave them two weeks to complete the work.

#### CHESTNUT VALLEY

Is located near the Marietta Road, two miles from Zanesville. It is the property of Michael Fisher and is managed by M. L. Fisher. It is a drift opening made into the No. 6 seam of coal, which here is three feet in thickness. It is worked on the single entry system and has furnace ventilation. Thirteen miners are employed. When visited June 16th it was found in good order.

# WERNER, NO. 3,

Is situated near the Marietta Road, one mile from Zanesville. It is the property of Wm. A. Werner, who is also superintendent and James Foutz, mine boss. It is a shaft opening eighty-one feet in depth, made into the No. 6 seam of coal, which here is three feet in thickness. It is worked on the single entry system and is ventilated by a fan. Twenty-three miners are employed. When visited June 17th I found they had boarded up thirty-two feet more of the hoisting tower, making altogether fifty-two feet above the surface, besides putting a signal wire into the shaft. After all that was done, I saw no current of air. On my next visit August 21st, they had erected an eight foot fan, built at Washington, Indiana. I found 10,780 cubic feet of air at the inlet and outlet and the mine was in good order.

# INSPECTOR OF MINES.

# LIST OF SMALL MINES EMPLOYING LESS THAN TEN MEN.

	Kind of	Name of owner	Number of	D-4-6
Name of mine.	opening.	or operator.	men.	Postoffice address.
Lehigh	Drift			
Ballou	- 46			Zanesville
Salt Run	*******			Akron Zanesville
Oak Grove Lewis Harper	"			Zanesvine "
Greiner	"			"
Wallwork No. 1	"	Bridwell & Barton		44
Wallwork No. 2	46	Geo. Harper	3	"
Morgan	"			"
Melvin's 4 foot	66 66			1
Fletcher				Ellis
McCormick Welsh	"			Zanesville
Pansler	"			"
Geo. Harper	"	Geo. Harper		· · ·
Wm. Dick	"	Wm. Dick		Hopewell
Frank Dick	"			Coaldale
Sam Porter	********			Hopewell
Geo. Porter				Coaldale
Morrison	"			Hopewell
Campbell	44			
Starkey	"			Coaldale
Sellers	46	Isaac Sellers	1	Hopewell
Fisher	"			Zanesville
Rowdock	"			
Swank	*********	N. F. Swank Bridwell & Barton		"
Richards	"			.44
Werner	"			"
Downerd	"	"		44
Philo	"	John Orr		Philo
Miles No. 1	46		4	Zanesville
Miles No. 2			5	"
Sealover	******		2 3	"
Hoff Schultz	"			"
German	66	ا ما	1 _	"
Wheeler No. 1				• •
Wheeler No. 2	"	Joe Purcell	2	"
Spinks	"	Henry Spinks	2	"
Hopkins			1	46 .
Harper's No. 3 Harper's 3 foot	"	Eben Harper	5 4	"
Foutch	"	f. W. Foutch	7	"
Oak View	"	J. Detenbeck	2	"
Buckeye	"	Buckeye P.Br'K Co		"
Kennedy		J. W. Severance	3	"
Purcell	"	Wm. Dixon	2	
Blocksom	46	Chas II Past	1	
Taylor		Chas. H. Best Thos. Potts	1	"
Potts Spence	"	Ed. Spence	i	"
Andrews	"	J. W. Andrews	ì	"
Emery No. 1	"	Abe Emery	5	"
Emery No. 2	"	**	2	"
Miller	"	Colone B	2	
Ashmore		Griener Bros	l 8.	

# EXECUTIVE DOCUMENTS.

# LIST OF MINES EMPLOYING LESS THAN TEN MEN-Concluded.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of men.	Postoffice address
Moore No. 5	Drift	G. W. Besser	2	Zanesville
Swope	"	Frank Swope		"
Yinger	"	Frank Lacey		"
remple	**	Wm. Temple		"
Bridwell	46	J. Bridwell		u
Smith	"	Wm. Uphold	ĺ š	"
Moore No. 6	"	John Lutz		44
Henke	"	D. E. Henke		46
Nethers No. 1	"	Frank Cullins		Frazeysburg
Nethers No. 2	"	J. Knight		""
Bell No. 1	"	C. M. Bell		"
McCann No. 1	"	J. Harper	_	"
McCann No. 2	"	Frank Cullins		"
McCann No. 3	44	J. Harper	4	"
Gourley	"	Eli Gourley	2	"
Horner	"	C. C. Horner		
McConnell	"	Conway & McCon'l		Dillon
Orange Hill	66	M. W. Williamson.		Dillon
Edwards	"	Neal & Co	_	"
	44	Hysell & Davis	-	
Peacock Iackson	4	W. R Jackson		
	"			Otsego
Buker		W. F. Trimble		"
Trimble	"			
Riney	"	G. T. Riney		
Norman	"	F. Workman		"
Walker No. 1		C. P. Walker Smith & Bell		"
Goodhart	********		_	\
Hamilton		L. C. Hamilton		_
Bell No. 2	•••••			Sago
Eppley				Duncans Falls
Copeland No. 1				Dresden
Copeland No. 2		Chas. Ogle		1 "
Egbert		F. H. F. Egbert	. 2	1 "
Jamison	•••••	J. Jamison	2	1
Stuller				"
Griffen				"
Sandle	"			"
Dresden	<b>"</b> ·······	Ralph Spence		46
Comer	*******	T. J. Comer		"
<b>Moore</b> No. 4	4	Mrs. Moore		Ellis
Lane	<b>"</b>		1 -	1
Walker No. 2	"			Norwich
Morehead	"	A. K. Moorehead	.  2	1 "

# NOBLE COUNTY.

# GLENWOOD

Is situated at Glenwood Station on the C. & M. V. R. R., and is operated by J. J. Phillips of Cleveland, who is also superintendent. B. W. McMillen is mine boss. It is a shaft opening 110 feet in depth made into the No. 7 seam of coal, which here is five feet in thickness. It is worked on the double entry system and is ventilated by the steam from a pump which is placed at the bottom of the shaft. Sixteen miners and three day hands were employed on January 7th, 1896. Prior to this it had been suspended during my term of office. The shaft was sunk in a fault. The former company had attempted to develope the mine on the east side and the coal did not

improve, consequently it was abandoned. Recently it came into the possession of Mr. Phillips, who is driving an entry on the west side with a view of getting beyond the fault. I found explosives stored in the weigh house near the top of the shaft. I condemned the practice and ordered them to build a powder house at a lawful distance from the shaft. On February 12th, the explosives were still stored on top of the shaft, whereupon I brought the men out of the mine, after which I found a shanty on the ground and had it removed one hundred and thirty-two feet from the engine house. I then requested them to remove the explosives into it. After this was done I allowed the men to resume work. On May 12th, I visited this mine in company with the Chief Inspector for the purpose of investigating the cause of the death of Mr. B. W. McMillen, who died between seven and eight o'clock on the morning of May 11th, from the effects of an explosion of fire damp on Sunday P. M., the 10th. Mr. McMillen was the mine boss and they had blown the boiler out on Saturday evening to clean it. When attempting to start the pump on Sunday afternoon it refused to work. Mr. McMillen went down the shaft to start it with a common lamp on his head. A few minutes after the pump started the explosion occurred. The deceased rung the signal bell and was hoisted up the shaft. It seems evident that after Mr. McMillen started the pump that he had traveled in on number two entry, where the air was returning to the shaft, as we found his lamp at the inside room on that entry on Friday, May 15, 1896. There was 1,300 feet of air at the outlet on this date. On May 15, I found a new chieve wheel put up on the hoisting tower and the partition battoned between the hoisting shaft and the air chamber, besides the door at the bottom which stood between the inlet and return had been repaired. I found 3,619 cubic feet of air at the outlet on this visit. I went into the face of both entries and found no gas. I ordered a check put up between the two outside rooms on the first and second entries. I also informed them that it was the desire of the Chief that the mines would not resume operations until 6,000 feet of air was traveling. On May 19th, I found E. A. Davis on the premises as mine boss and the condition of the mine was not changed. On May 23, I found 6,716 cubic feet of air traveling. I went into every place in the mine and found no gas. They had lined a portion of the partition between the two shafts with canvas, and put canvas on the bottom of the door. They also had put up two check curtains, besides enlarging the air way at the pump and put a steam jet into the air shaft. I told Mr. Davis to allow his men to go to work. On August 20th there were thirty-eight miners, four inside and four outside day hands employed. I found an eight foot Brazil fan erected and 10,344 cubic feet of air traveling. The mine was in good order.

# JUMBO

Is located at Jumbo trestle, one mile from Mt. Ephraim Station on the B. Z. & C. R. R., and is operated by Young Bros. of Sarahsville. J. E. Young is superintendent and Levi Vandee, mine boss. It is a new drift opening made into the Meigs Creek seam of coal which here is three and one-half feet in thickness. It is worked on the single entry system and has natural ventilation. Ten miners and one day hand are employed. When visited October 8th, the mine was in fair condition.

#### MT. EPHRAIM

Is located at Mt. Ephraim in Seneca township, and operated by S. J. McConnell, who is also manager. It is a new drift opening made into the Meigs Creek seam of coal which here is three and one-half feet in thickness. It is worked on the single entry system and is ventilated by a stove. When visited October 8th, sixteen miners, two inside and one outside day hand were employed. There was an air shaft sunk and a stove placed in it for ventilation. The mine was in very good order.



The following is a list of small mines employing less than ten men:

Name of mine.	Kind of opening.	Name of owner or operator.	Number of men.	Postoffice address.
Brand	Drift	S. J. McConnell		Mt. Ephraim
Henderson	"	J. A. Henderson	•••••	7.4
McAndree	"	J. Simpson Thos. Paisley	1	Cumberland
Paisley	"	Thos. Paisley	4	"
H. C. Hunter	"	H. C. Hunter		"
Taylor		W. W. Taylor		
Crawford	• • • • • • • • • • • • • • • • • • • •	F. H. Crawford N. M. Meek		Summerfield
Meeks Young	"	D. O. Young		"
McClintock	"	W. W. McClintock		"
Sullivan	"	E. P. Sullivan	_	"
Beymer	"	F. S. Beymer		44
Bryan	"	I. W. Bryan	ı	Enoch
Matheny	"	R. J. Matheny		44
Archer No. 2	·	M. Archer	1	
Curtis	"	D. R. Curtis		Flag
Love	44	Theodore Love		44
Vance No. 2	"	I. R. Vance	4	"
Yonally No. 1		Wm. Yonally		"
Yonally No. 2	"	John Daniels W. E. Day		66
Day Vance No. 3	"	David Vance	8	Stafford
Vance No. 1	6	W. Johnson	Ξ	"
Okey	"			"
Polin No. 1	*4	Andrew Polin		Perryopolis
Polin No. 2	"	Andrew Polin		-"-
Merry	"	W. J. Smith & Co		"
Davis No. 1	44	Ezra Davis		Caldwell
Davis No. 2	"	Ezra Davis	1	"
McKee	66 66	C. I. McKee		"
Calland	"	G. W. Davidson		İ
Franklin No. 1	"	J. A. Franklin W. H. Franklin		Whigville
Franklin No. 2	•6	James Donnely		"
Donnely	"	J. E. Sparling		"
Whicker	66	W. McLaughlin	_	Sarahsville
McLaughlin	"	W. McLaughlin	3	"
Pettay	"	T. A. Pettay	4	"
Morrison No. 1	"	J. H. Young		"
Morrison No. 2	"	Perry Kemp	3	_ "
Leisure	"	Willis Leisure		Berne
Smith	"	J. I. Smith		"
Schott	"	Jacob Schott		
Archer No. 1		S. M. Archer	2 3	McLeary Ashton
Boyd Miller		Theodore Boyd Henry Miller	3 4	Fulda

# MORGAN COUNNY.

# BLACK DIAMOND

Is situated at Deavertown station on the C., S. & H. R. R. It is a drift opening made into the No. 6 seam of coal which here is three and one-half feet in thickness. It is worked on the double entry system and is ventilated by a small kettle of fire. Forty-six miners, four inside and four outside day hands are employed. When vis-

ited January 2nd it was operated by Sturgeon, Ford & Co., of Columbus L. R. Morgan is superintendent and James Tandy, mine boss. The ventilation was deficient. I found a number of stoppings leaking between the inlet and return air wavs which I ordered reclayed. I also ordered a check put up at Bennetts room on the main entry, and one between the two outside rooms on the dark entry. I gave them two weeks to improve the ventilation. It was visited again on May 28th and found idle. When visited on September 10th it was operated by Rose Valley Coal Co. John French is superintendent and L. C. Lucas, mine boss. They had built a small furnace, and the mine was in good order.

#### ROSE

Is located at Deavertown station on the C., S. & H. R. R., and is operated by Carding Bros. George Carding has entire supervision. It is a drift opening made into the No. 6 seam of coal which is here three and one-half feet in thickness. It is worked on the double entry system and is ventilated by a small furnace. Twenty-four miners, two inside and one outside day hand are employed. When visited on May 28th the furnace that was being constructed on my previous visit had been completed. I found two rooms on the right hand side of the main entry that were 116 feet in advance of the air current. I ordered a check put up on the entry to turn the air into those rooms. I also ordered a check put up on the left cut-off, to conduct the air into a panel of rooms on that side. When visited again on September 10 it was operated by C. H. Covert of Columbus, who has been appointed receiver. The mine was found in fair condition.

Mines visited in the Fourth and Fifth Districts, by order of R.M. Haseltine, Chief Inspector of Mines:

# **IOHNSTON**

Is located in Jefferson county, one mile west of Brown Station, on the C. & P. R. R. and is operated by Thos. Johnston. It is a drift opening made into the No. 8 seam of coal which here is four and one-half feet in thickness, and at the time of my visit employed one miner. On November 21, in company with R. M. Haseltine, Chief Inspector of Mines, Thos. McGough, Inspector of the Fourth District, and Thos. H. Love, the Resident Inspector, it was inspected in regard to its sanitary condition. We found but one opening and the main entry was driven in over six hundred feet with numerous side entries. There was no perceptible current of air in the mine. We considered the mine in an unlawful condition.

# NEW SHAFT

Is situated at Salineville, Columbiana county, on the C. & P. R. R. and is operated by the Big Vein Coal Co. of Cleveland. Samuel Madison is superintendent and John Gallagher is mine boss. It is a shaft opening and is ventilated by a fan. In company with Mr. Thos. H. Love, the resident inspector, it was visited November 22d when it was found that room No. 5 on the tenth right entry was on fire. This originated from a miner firing a shot and exploding a gas blower. They were trying to extinguish it by throwing water on it and considered they were making some headway.

## FARMERS OR CENTRAL

Is situated near Byesville, Guernsey county, and is operated by the Cambridge Fuel Co. Jerry Smith is superintendent and Walter Smith, mine boss. It is a shaft opening and is ventilated by a fan. On December 18th, in company with the Chief Inspector, and Mr. Alex Beattie, Inspector of the Second District, it was inspected for the purpose of ascertaining the distance between breakthroughs, in order that

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we might appear in court and give testimony in a suit then pending between the Department and the officers of the said mine. We found the distance ranging from 85 to 115 feet. It was visited again on February 6th in company with Mr. Beattle and Mr. McGough, the resident inspector, when we found them making the breakthroughs in the entries at the lawful distance. The same condition prevailed in rooms as on the previous visit.

#### CISCO

Is located near Point Pleasant on the C. & M. R. R. and is operated by the Cambridge Fuel Co. Jerry Smith is superintendent and G. P. Bird, mine boss. It is a shaft opening made into the No. 7 seam of coal and is ventilated by a fan. When visited on January 7th, thirty miners, seven inside and eight outside day hands were employed. The mine was found to be almost completely surrounded by a fault; there was not an entry running in the mine. I found a number of rooms that were smoky, but this could not be avoided as they were driving the rooms into a dent in the horse back in order to prove it.

#### WALHOUNDING

Is situated near Pt. Pleasant and is operated by the Cambridge Fuel Co. Jerry Smith is superintendent and G. P. Bird, mine boss. It is a shaft opening made into the No 7 seam of coal, is worked on the double entry system and is ventilated by a fan. When visited on January 8th, one hundred and eighty-four miners, thirty inside and eleven outside day hands were employed. I found a number of breakthroughs between entries obstructed by falls of slate. I advised them in such cases to knock a board off the second breakthrough in order to not obstruct the air current. I also recommended double doors put up at the end of 7th and 8th west entries, where the single door was frequently opened in order to allow the drivers to pass through as this checks the regular air-current.

# HARTFORD

Is situated est the village of Hartford on the B. & O. R. R. and is operated by the Cambridge Consolidated Coal Co. James Moss is superintendent and John Cheatham, mine boss. It is a shaft opening made into the No. 7 seam of coal which here is nearly seven feet in thickness. It is worked on the double entry system and is ventilated by a fan. When visited on January 9th, one hundred and sixty miners, twenty inside and fourteen outside day hands were employed. I found more air on the regular current going round the mine, for the amount of air at the inlet, than any other mine I had been in. I considered the mine in excellent condition.

# COSHOCTON COUNTY.

#### RILRY

Is situated three miles from Perryton. It is a drift opening. The coal is from one to two feet in thickness. The mine employes one miner. It is operated for local trade. I visited it on February 13th, to investigate the case of the death of Geo. W. Collins, who was fatally injured by a fall of slate in this mine on Wednesday, February 5th, 1896. He was working in the entry which is four and one half feet in width and at a point about one hundred feet in from the mouth. He had just taken a fall off the side in the act of turning a room, when the slate fell on him; the time of the accident is supposed to be about ten o'clock in the morning. There was no house or any person within one-half mile of the mine. The unfortunate lay under the slate until his relatives came from Perryton and re-

leased him about eleven o'clock the same night. He died at two o'clock the following morning, February 6th, 1896. The slate that fell on him was five feet wide and eight feet long and from two to eight inches in thickness.

# REPORT OF THOMAS McGOUGH,

Inspector of the Fourth District, from November 15, 1895 to November 15,

Hon. R. M. HASELTINE, Chief Inspector of Mines, Columbus, Ohio.

DEAR SIR: I hereby respectfully submit my annual report as to the location, the sanitary condition and the improvements made for the better protection of the health and safety of the miners in the Fourth Mining District of the state, from November 15, 1895 to November 15, 1896.

There has been no perceptible improvement in the coal trade over that of the two previous years. While local strikes have not been as numerous as in former years, it is true that at the end of the inspection year, all of the large mines in Guernsey county were on a strike against a reduction in mining of sixteen cents per ton. The small mines of the district, however, accepted the reduction and worked every day at the reduced rate.

Two hundred and sixty-eight visits were made during the year, ten of which were for the purpose of investigating fatal accidents. With a few exceptions it developed to be the same old story, carelessness on the part of the victim, the direct or indirect cause of the loss of life.

During the year eight sets of scales were tested and with but few exceptions they were found to weigh correctly. One new mine was opened; four suspended, and nine were abandoned during the year. As to permanent improvements in Belmont county, four furnaces were built, three air-shafts sunk, six second openings made and one fire basket was hung. In Coshocton county eight furnaces were built, seven air-shafts were sunk, six second openings made, and two fire-baskets were hung. In Guernsey county two fans were erected, two air shafts sunk, and two second openings were made. In Holmes county one furnace, and one air-shaft and one second opening were made, making a total number of permanent improvements, torty-six.

During the year in order to compel a compliance with section 298 of the minng laws of the state, it became necessary for the department to institute legal proceedings against the Cambridge Fuel Company. At the preliminary trial before a squire in Cambridge, the mine boss was bound over to the court in the sum of one hundred dollars. Previous to the trial meeting of the Grand Jury, that dreadful disease, smallpox became prevalent in Bridgeport and vicinity. As a result, I was quarantined, which prevented me from being able to attend to the details of the case, whereupon you delegated them to District Inspectors Miller and Beattie, who, with your assistance made an investigation of the case and produced such evidence as to cause the company to be indicted. During the spring term of court the case was tried. It was clearly proven that the law had been violated, but the company claimed that W. A. Smith, a former manager, was the responsible party, and as he was beyond the pale of indictment, the case against the mine boss was dismissed.

One of the most hazardous duties which I was called upon to perform during the year was in assisting to control the fire in the Trail Run mine in Guernsev county. During the fire it was demonstrated that managers of mines should always be prepared for such occurrences and have on hand suitable material, for such accidents are liable to happen at any time and in the best regulated mines.

With few exceptions my official relations have been pleasant during the year that has just closed. In conclusion I wish to thank the District Inspectors, Miller and Beattie for favors received, and you, as chief of the department, for your able assistance rendered me during the period covered by this report.

I am, very respectfully,

THOMAS McGough,
Mine Inspector of Fourth District.

BRIDGEPORT, OHIO, November 15, 1896.

# BELMONT COUNTY.

#### WHEELING CREEK NO. 1

Is located on the C., L. & W. R. R. near Bridgeport, and is owned and operated by the Pittsburg and Wheeling Coal Co. Mr. J. E. Waters is superintendent and Mr. Walter Biddington, the mine boss. Visits were made on November 18th, December 23d and 24th, February 24th, June 17th and 18th, September 15th and 16th. The first visit was to investigate the cause of an accident by which Frank Sutor, a miner, lost his life. A slip in the soapstone at the face of his room caused a wedgeshaped piece to fall and crush him so badly that he died a few days after. No blame could be attached to anyone as the room was well posted in every particular. On the same date I tested the oil and found the gravity to be 25.1 degrees. I condemned it and had it returned. On the next visit the mine was found in good condition. On the 13th of February, John Dlesk, a miner, lost his life while at work at the face of his room. He had shot in the top coal in the centre of the room but did not bring it all down, so he went under it to shovel coal, when it fell and crushed him so badly that he died four hours after. On the other inspections the mine was found in good order. Two hundred and seventy miners and forty day men are employed. It is a drift opening and has furnace ventilation.

# WHEELING CREEK NO. 2

Is located near No. 1 and is operated and managed by the same parties. It was visited during the year on the following dates: December 30th, June 23d and on September 16th. On the first date they were making some improvements in the return air course by taking off the curves and cleaning it up. On the next date the work had been completed and the friction greatly reduced thereby, so increasing the volume of air that the mine was thoroughly ventilated in every particular. On the next visit the mine was found suspended. Fifty-five miners and eight day men are employed. It is a drift opening, has furnace ventilation and is worked on the double entry system.

# CRESCENT

Is located at Crescent, formerly Kidds P. O. on the Cleveland, Lorain & Wheeling R. R. and is owned and operated by the Pittsburg & Wheeling Coal Co. Wm. Hanson is the mine boss. Inspections were made on February 24th, June 26th and September 14th. On the first date I requested that a carbon oil which was burning at the passway be removed and lard oil used, or confine the light in a glass case, as this was the inlet for the air; also to keep the breakthroughs between the rooms free from obstruction. On the next date there had been very little improvement in the breakthroughs and some of the rooms were scarce of posts. On the next date the conditions were about the same, as the mine had done very little work since my previous inspection. The miners here burn a great deal of miners sunshine for light, instead of cotton seed oil. The amount of powder that is consumed here is enormous and it keeps most of the entries smoky all day. One hundred and

eighty-five miners and nineteen day men are employed. It is a drift opening and has furnace ventilation.

# FLUSHING

It located near Flushing and is owned and operated by the Flushing Coal Co. W. G. Williams is superintendent and mine boss. Visits were made on January 20th, May 14th, July 29th and October 5th, and each time the mine was found in good condition. They have done very little work during the year. The mining machines had not been in operation for two months. The company claimed that it cut down expenses to have the coal mined by hand when they could only operate the mine at intervals as had been the case during this period of depression. The seam of coal is four feet in thickness. Double entry system and fan ventilation are used. Forty-five miners and nine day men are employed.

#### ROCK HILL

Is located near Flushing and is operated by the Rock Hill Coal Co. John Selway is the superintendent and mine boss. Inspections were made on January 20th, May 14th, July 29th and October 5th. On the first date the check doors were not in good order. I requested that a trapper boy be stationed to attend the doors between the No. 15 and No. 16 entries, also that they brattice off the old works. On the next visit one of the face entries was found driven outside. I requested that it be timbered and drained. On the next inspection the entries were in a very dangerous condition, caused partly by the wet weather but more particularly the result of carelessuess on the part of those in charge, in not properly timbering where it was needed. The water in several places on the entry was twelve inches deep and to prevent an accident, I was compelled to close the mine, until it could be put in a safe condition. On the last inspection they were cleaning up the main entry as all the other entries had caved in. They were also putting down an air shaft, which will be used to ventilate the new work to be opened for future mining, as well as to comply with the law. Ninety miners and twenty-three day men are employed. It is a drift opening with fan ventilation.

# MAPLE HILL

Is located near Barton on the Cleveland, Lorain & Wheeling R. R. It is operated by the Maple Hill Coal Co. Visits were made on January 30th, May 4th, July 22d, and August 6th. On the first date I ordered two doors erected and the main entry timbered. On the next date the doors were up, but there were eighty-seven men at work and only air enough for seventy-five. The men were reduced to the latter number until some repairs were made. On the next date an addition of twenty feet had been built to the furnace stack, and still the ventilation was not satisfactory. The timbers on the main entry were not put up as ordered. On the next date it was found that the entry had been timbered, but the ventilation was about the same. In order to properly ventilate the mine, I advised them to get a fan. George Atherton is superintendent and James Bainbridge has superceded W. P. Williams, as mine boss. Eighty-five miners and nine day men are employed. It is a drift opening, operated on the double entry system.

#### **BOGGS**

Is located on the St. Clairsville branch of the Cleveland, Lorain & Wheeling R. R., and is operated by E. N. Boggs, who is also superintendent. John Baugh is the mine boss. It was visited on January 29th, May 4th and on July 22d. On the first inspection I ordered the main entry timbered. On the second date they were at work complying with the orders but did not have enough men at work to complete it

within a reasonable time. I requested that the work be completed as soon as possible, owing to the danger of an accident. On the next date the mine was idle, and they had done very little work since my last inspection. Twenty-four miners and five day hands are employed. Furnace ventilation is used. The opening is a drift

#### **TAGGARTS**

Is located near Boggs, and is operated by Joseph Schindler, who is also superintendent and mine boss. Visits were made on January 29th, May 4th, and July 22d. The first visit was to test the scales. I found them weighing in favor of the miners and had them adjusted before any more coal was weighed. On the second date they were timbering the main entry as ordered. On the next date the mine was in fair condition. Twenty-two miners and five day hands are employed. It is a drift opening and is provided with furnace ventilation.

#### AETNA-STANDARD

Is located at Aetnaville and is operated by the Aetna-Standard Coal & Iron Co. Roger Ashton acts both as superinteudent and mine boss. Inspections were made on December 9th, April 17th and September 22d. On each date the mine was found in good condition. On the last inspection the force of miners had been reduced to thirty-four, and the mine was only working one and two days per week. This was caused by nearly all of the departments in the mill using natural gas. At this date there was talk of them closing the mine and using gas exclusively for fuel in the mill. It is a drift opening and provided with furnace ventilation. Thirty-four miners and five day men are employed.

# LAUGHLIN

Is located near Martins Ferry, and is operated by the Laughlin Nail Co. Wm Glessner is superintendent, and Leander Woods, mine boss. Inspections were made on January 18th, April 22d, August 3d, and November 12th. On the first date it was found that a twelve foot Brazil fan had been erected, which was giving good results. I ordered the main entry timbered throughout. On the two following dates they were at work timbering, and on the last date the work was nearly completed. I ordered the ditch cleaned out and to keep the water from the main entry, also several breakthroughs made in rooms. Twenty miners and three day hands are employed. It is a drift opening and is operated on the double entry system.

#### GAYLORD

Is located four miles north of Bridgeport on the Cleveland & Pittsburgh R. R. It is operated by the McGinley Bros. Patrick McGinley acts as manager. It was visited on Jauuary 16th, April 15th, August 4th and November 14th. On the first date the mine was found in fair condition. On the second date the face entry was ahead of the air and work was stopped until a breakthrough was made. Several rooms were found to need breakthroughs. Orders to clean out the escapement-way, so that it would be available in case of an accident, were given. On the next two inspections it was found that my orders had been complied with and the mine was in fair condition. Thirty-five miners and 11 day men are employed. It is a drift opening and is provided with furnace ventilation.

# WALNUT HILL

Is located at Yorkville on the Cleveland and Pittsburg Railroad. It is owned by the Ohio and Pennsylvania Coal Co. Chas. Robbins is superintendent and Henry Seik, the mine boss. Inspections were made on January 16th, April 16th, July 6th, August 5th and on November 13th. On the first date I requested that the main entry be timbered, and the breakthroughs between the rooms be kept free from obstructions. On the next date I ordered them to employ no more men until the ventilation was improved, and I advised that a new opening be made to remedy this. This next visit was to investigate the cause of the accident by which George Patterson, a miner, lost his life. He was at work in his room close to the face when a piece of roof coal and soap-stone fell upon him and broke his back. He lingered for five weeks when death releaved him of his suffering. No blame can be attached to any one for the accident. On the next date the new opening was provided but the timbering had not been done. I notified the company by mail, of this fact and requested that it be completed at once, as in case of an accident the company would be held responsible. On the last date the timbering had been done with the exception of a few set that were still needed. It was found that the return air way had fallen in. I advised that it be cleaned out and timbered as soon as possible. Ninety-five miners and seven day men are employed. It is a drift opening and has furnace ventilation.

# NAIL MILL

Is located in Bellaire and is operated by the Bellaire Nail Works. Mr. Chalkley Dawson acts as superintendent and Jacob Long as mine boss. Visits were made on Pebruary 25th, May 8th and August 14th, and on each occasion it was found in good condition. They extended the locomotive haulage 2,000 feet further into the mine, which now makes the total distance 6,000 feet from the outside. By a fan sixteen feet in diameter, the mine is will ventilated in every respect. It is a drift opening. Thirty-five miners and nine day men are employed.

# BERNARD

Is located in Bellaire and is operated by Kinsey Bros. Oliver Kinsey acts as manager. Visits were made February 25th, May 8th and July 20th, and each time the mine was found in good condition. Work has been dull this year as the Brick and Tile Works which are supplied with coal has been suspended a large part of the time. Nine miners and two day men are employed. This is a drift opening and has furnace ventilation.

# BELMONT NO. 1

Is situated in Bellaire and is owned and operated by the Belmont Coal Co. Albert Heatherington is the superintendent and W. P. Crozier is the mine boss. It was visited on May 7th, July 16th and November 11th. On each inspection the mine was found in good condition. This is a drift opening and has furnace ventilation. From five to twelve miners are employed during the winter season.

# BELMONT NO. 2

Is located near Belmont No. 1 and is owned and operated by the same company. D. B. Brooks is superintendent and mine boss. Inspections were made on January 8th, May 7th, July 16th and November 11th. On the first date I advised that the air course be cleaned out in order to make it available for a traveling way for the men to be used during working hours. On the next two dates I found that my orders had been complied with. On the last inspection the air was not uniformly split in the fifth and sixth entries. Mr. Brooks promised to correct this at once. This is a drift opening and has furnace ventilation. Forty-five miners and fourteen day men are employed.

# PITTSBURG

Is a slope opening near Bellaire. Visits were made on May 7th, July 16th and November 11th. On the first date it was found that the mine had been sold by the

sheriff and was idle. On the next date there were a few men at work cleaning up. On the next date the mine was suspended and there were no prospects of resuming soon. The present owners are not known. It has furnace ventilation.

#### WEGER

Is located five miles south of Bellaire and is a slope opening into the No. 8 seam of coal. It is operated by John Hall, who is also sole manager. It was inspected on September 24th, when orders were given to either make a new return air course or put the old one in such a condition as to comply with the law. There seemed to be a great deal of weight on the main entry and it was ordered timbered throughout, in order to make it safe. Furnace ventilation is used. Fifteen miners and three day men are employed.

# CAPTINA

Is located on the B., Z. & C. R. R., and is operated by the Captina Coal Co. Mr. M. V. Gates acts as manager. Inspections were made on March 18th and September 23d. On the first date I requested that breakthroughs sixty feet apart be made in the future, also that some timber be erected at the bottom of the shaft. On the next date I found that my orders had been complied with and that the mine was in good condition. Eleven miners and three day hands are employed. The mine is provided with fan ventilation.

#### SCHICKS

Is located near Bellaire, and is operated by Schick & Turnbull. James Turnbull acts as superintendent and mine boss. Visits were made on January 2d, March 20th, July 14th and November 10th, and on each visit the ventilation has not been in a satisfactory condition, owing to obstructed air courses and leaking brattices and doors. They have partially corrected some of these violations by the erecting of an overcast and by driving part of a new air course, but the mine was still not in compliance with the law. On my last inspection the superintendent was notified that the limit of forbearance had been reached, and that unless the ventilation was remedied as soon as possible, the department will be forced to close the mine. This is a drift opening and is provided with furnace ventilation. Forty miners and seven day men are employed.

# STANDARD (FORMERLY KIDDS)

Is located three miles west of Bellaire on the B. & O. R. R. It is operated by Alex Neff as Admr. Robert Kidd acts as mine boss. Visits were made on March 19th, May 27th and September 8th. On each visit, with the exception of several brattices that were leaking, which were ordered repaired, the mine was in fair condition. This is a drift opening and has furnace ventilation. Forty miners and five day men are employed.

# O. & W. VA.

Is located on the St. Clairsville branch of the B. & O. R. R., and is operated by the Ohio & W. Va. Coal Co. C. Troll acts as superintendent and James Sklenar, mine boss. Visits were made on March 17th, May 17th and September 9th, and on each inspection the mine was found in good condition. On the last visit there were only five men at work driving entries, as trade was dull. This mine is a drift opening and has furnace ventilation.



# BLACK DIAMOND

Is located near the Ohio & West Virginia mine, and is operated by Troll Bros. C. Troll acts as superintendent and M. O'Grady as mine boss. Visits were made on March 17th, May 26th and September 9th. On the first date the mine was found idle. On the second date they were at work cleaning up the entries, with a view of resuming operations. On the last inspection there were several places on the main and the butt entries where I ordered timber erected. I also requested that they repair the brattices that were leaking between the entries. On this date fifty-eight miners and nine day men were employed. It is a drift opening and is provided with furnace ventilation.

#### ECHO

Is located near the Black Diamond and is owned by S. H. McGregor. Luke Daily acts as mine boss. It was visited three times during the year. On the first visit the mine was in operation and found in fair condition. On the last two visits the mine was suspended, and there were no prospects of its resuming soon. This is a drift opening provided with a furnace ventilation, and when in operation employs from six to twelve men.

#### FRANKLIN

Is located at Franklin Station on the B. & O. R. R. and is owned by Owen Meehan. Ross Campbell acts as mine boss. Visits were made on January 9th, July 15th and September 11th. On the first date I requested that some loose roof coal near the furnace be taken down. On the next date the mine was idle, but there were a few day hands at work cleaning up the entries. On the last date the mine was suspended, with no prospects of resuming. This is a drift opening and when in operation employs fifty miners and ten day men.

## COCHRANS

Is located at Baileys Mills on the B. & O. R. R. and is operated by Alex. Cochran. Dode Smith is mine boss. Visits were made on December 2d and August 13th. The first visit was to test the scales, which were found correct. I also tested the the oil and found the gravity to be twenty-three and one-half degrees. On the second visit the mine was in fair condition. They had recently built an addition to the furnace stack as I had ordered. This is a drift opening. Twenty-four miners and seven day men are employed.

### GLEN

Is located near Glenco on the B. & O. R. R. and is operated by the Glen Coal Co. Visits were made on November 25th, February 28th, July 15th and September 10th. On the first date check doors were ordered on all of the butt entries in order to to turn the air into the rooms. Directions were also given to have the mine surveyed and mapped as required by law. On the next date several brattices were found to be leaking. These were ordered repaired. On the subsequent visits it was found that my orders had been complied with and the mine was in good condition. Ross Campbell had superseded T. W. Davis as mine boss. W. G. Simpson acts as superintendent. Fifty miners and nine day men are employed. This is a slope opening and is provided with fan ventilation.

LIST OF SMALL MINES VISITED DURING THE YEAR WHICH EMPLOY LESS THAN TEN MEN.

Name of mine.	Kind of opening.		Number of men.	Postoffice address.
Hares	Drift	Keller Bros	2	West Wheeling.
Brooks	44	David Boyton	4	Bridgeport.
Koehnline		Koehnline & Son	8	" Stranger
McConaughy		Jas. McConaughy		"
Meisters No. 1		Meister & Son		44
Meisters No. 2	*****	Joseph Meister		"
O'Harrah		John Dickinson		"
Costine		Thos. Costine		
Klee		John E. Klee		Bellaire.
Morgan & Gorrell		Morgan & Gorrell		Bename.
Pelky		Israel Pelky	6	l "
Davis & Archer		Davis & Archer	•	
Cummings		Tohn Musgrave	3	"
Robinson		John Robinson		l "
Scahill		Lewis Pelky		
Keyser		Chas. Rosser		"
Burch		Patrick Scahill		۱ ،،
DeHass		Paxton Bros		Martin's Ferry.
				Martin & Ferry.
Hellings		Hellings Bros	3	
Sheets		Casper McCabe		l
Lephardt		Lephardt & Burns		1 4
Helts		Chas. Helt		D1-4
Green	61	J. Owens	2 2 2 2	Powhatau.
Fielding	Siobe	S. Fielding	2	
Tscappatt		John West	2	
Schnegg	Snart	John Schnegg	2	1
Davey			) 3	Bailey's Mills.
Prat	•••••		3 2 2	Barton.
Hughes	•••••	Geo. Ayers	2	" "
Harris		W. P. Williams	3	1
Sedgwick		C. Sedgwick	2	Martin's Ferry.
Allen	· ······	D. K. Allen	2	, "

# COSHOCTON COUNTY.

# conesville no. 1

Is located on the P., C., C. & St. L. (Panhandle) R. R., and is owned and operated by David Davis, who is also superintendent. James Murphy is the mine boss. Inspections were made on March 5th, and August 18th. On the first date the entry had been driven through the hill as ordered, and I advised that a new furnace be built. On the next inspection my orders had been complied with, and the mine was in good condition. This is a drift opening and thirty miners and three day men are employed.

# CONESVILLE NO. 2

Is located near Conesville No. 1, and is operated by the same parties. J. B. Morris is the mine boss. It was visited on the same dates, and on each time, was found in good condition. They are drawing the pillars and the mine will soon be abandoned. Thirteen miners, and one day man are employed. This is a drift opening and is provided with furnace ventilation.

# CONESVILLE NO. 3

Is located at the same place, and is operated and managed by the same parties as Conesville Nos. 1 and 2. It was inspected on the same dates. On the first inspection, I stopped the third right and the face entries, as both places were ahead of the air. On this visit, the main entry was found to have been driven through the hill which had increased the ventilation. On the last date the mine was found to be exhausted. They will continue to use the main entry as a haulway for the new mines which they expect to open in another range of hills, and will no doubt extend the tail-rope through. Thirty miners and seven day men are employed.

# CONESVILLE NO. 4

This is a new mine, and is under the same management as the other Conesville mines. It was visited on August 18th, when it was found that the air shaft had been sunk, and they were preparing to build a furnace. Eight miners, and two day men are employed.

# conesville no. 5

This is also a new mine, and is operated and managed by the same parties. On August 18th, the main entry was in a distance of nearly one hundred feet, and I gave orders that an air shaft be put down, and a furnace built. Five miners are employed.

#### CONESVILLE NO. 6

This mine is located near Nos. 4 and 5, and all of the coal from the three mines will be hauled through the No. 3 main entry, and will be dumped over the same tipple. When it was visited on August 18th, the main entry was only in a distance of thirteen sets of timber. Three men were employed.

# FRANKLIN, EAST SIDE

Is located four miles west of Coshocton, on the P., C., C. & St. L. R. R., and is operated by the Columbus Mining Co. F. N. Barns, is superintendent, and Frank Uffner, the mine boss. Visits were made to this mine on February 12th, April 28th and August 28th. On the first date, the main entry was ordered timbered. On the next inspection, the timbering had not all been done, and the order was repeated. On the last visit, the mine was idle, hence no inspection of it was made. This is a drift opening, and has furnace ventilation. Twenty-five miners, and five day men are employed.

# FRANKLIN, WEST SIDE

Is operated and managed by the same parties as Franklin, East Side, and was visited on the same dates. A new furnace has been built, and the main entry had been timbered during the year, which has put the mine in good condition. Seventeen miners, and three day men are employed. This is also a drift opening.

# CONLEY NO. 1

Is located near Coshocton and is operated by John Conley. John Hall is the mine boss. It was inspected on April 30, when two men were made to cease work drawing pillars on an entry which was in a dangerous condition, on account of black-damp coming from the old workings, otherwise the mine was in fair condition. This is a drift opening and has furnace ventilation. Eight miners and two day men are employed.



### CONLEY NO. 2

Is located six miles from Coshocton on the C., C. & S. R. R., and is operated by John Conley. J. K. Bowers is the mine boss. During the year an air shaft has been sunk and a new furnace built, which greatly improves the ventilation of the mine. I ordered that a correct map be made of the mine at once. Seventeen miners and five day men are employed.

#### CONLEY NO. 3.

This mine has been suspended and at the present time there are no prospects of its resuming operations.

#### DRAKE

Is located near Coshocton and is operated by the Coshocton Coal Co. Charles Cassingham is the superintendent and Thomas Williams, the mine boss. Visits were made on February 11th, May 1st, and August 21st, and each time the mine was found in good condition. This is a drift opening and has furnace ventilation. Forty-five miners and nine day men are employed.

# CASSINGHAM

Is located three miles from Coshocton and is operated and managed by the same parties as the Drake mine. Inspections were made on March 4th, May 1st, June 11th and August 19th. On the first date orders were given to erect a brattice across the Carroll entry, to put up several doors, and also to sink an air shaft in the dip workings. The previous reports from this mine were of a nature to show that the law was violated in many ways, but I am pleased to report that at the end of the inspection year, the mine was in a satisfactory condition, as all orders had been complied with. Fifty miners and eleven day men are employed.

# MORGAN RUN NO. 1

Is located five miles from Coshocton on the C., C. & S. R. R.. and is operated by the Morgan Run Coal Co. L. B. Piper is superintendent and James McCormick, mine boss. Visits were made on March 6th, April 29th, June 10th and August 20th. On the first date all of the men were drawing pillars, as the solid coal was exhausted. On the next date the scales were tested. They were found to be in such bad condition, that I requested that an expert be brought to take the rust off and give them a general overhauling. On the next date I found that my orders had been complied with. On August 20th, the mine was abandoned and all of the suitable material moved to the No. 3 mine. The miners have been transferred to the No. 3 mine.

# MORGAN RUN NO. 3

Is located near the No. 1 mine and is under the same management. It was visited on the same dates. A new furnace has been built during the year. They are hauling the coal from the passway with the electric motor. The mine on each inspection has been found in good condition. The ventilation and drainage are well attended to in every particular. This is a drift opening, is worked on the double entry system and has furnace ventilation. Eighty miners and eighteen day men are employed.

#### WADE

Is located near Morgan Run and is operated by the Wade Coal Co. L. B. Piper is superintendent and James Perkins, the mine boss. Visits were made on March 6th, April 29th, June 10th and August 20th. During the year a furnace has been built and

a twenty-foot stack erected on the air shaft. These have greatly improved the ventilation of the mine. On the last inspection the roads were in a deplorable condition, being covered with mud and water. As nearly all of the entries dip, I ordered making a large sump into which the water could be drained; the water would then be exhausted by means of an electric pump, operated by the Morgan Power-House This is a drift opening and has furnace ventilation. Thirty-five miners and eight day men are employed.

#### HUDSON NO. 1

Is located three miles from Coshocton on the C., C. & S. R. R., and is operated by the Hudson Coal Co. C. Hudson is manager. Visits were made on March 4th, May 3d June 11th, and August 19th. The mine is worked on the single entry system, and on several occasions the entries had to be stopped until the air was brought up to what the law requires, otherwise the mine was always found in fair order. This is a drift opening and has furnace ventilation. Twenty miners and seven day men are employed.

#### HUDSON NO. 2

Is located near No. 1 and is under the same management. It was visited on the same dates as No. 1 and is subject to the same objections as that mine. The condition is as satisfactory as can be expected with the system used. Sixteen miners and three day men are employed.

T.Ter O	W MINES VI	TETTED DIDING	THE VEAD	WHICH EMPLOY	T.TREE 1	TEN MEN
LIST O	F MINES V	ISTTED DURING	THE YEAR	WHICH EMPLUY	LLE55 1	HAN IEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners.	Postoffice address.
Orange No. 1	Drift	Orangeville Coal	6	Coshocton.
Orange No. 2	"	Chas. West	4	"
Flint Hill		Thos. Clough		"
Halls No. 1	44	Chas. West	<b>2</b>	44
Wests		Ed. West		44
Chestnut Hill	"	J. H. Robson		44
Hayes No. 1		J. H. Kobson	8	46
Davis		J. L. Davis	4	44
Bells		Anderson Bell		Tyrone.
Kirker	"	Samuel Jirker	2	"
Halls No. 2		Luke Hall	6	Conesville.

# GUERNSEY COUNTY.

# BRIAR HILL NO. 2

Is located two miles south of Cambridge on the C. & M. R. R. and is operated by the Hamilton Mining Co. W. P. Devore is the superintendent and Thos. Richards, the mine boss. Visits were made June 30th, and October 15th. During the first part of the year the mine was suspended owing to dull trade and water breaking into the mine. On each inspection the mine was found in as good condition as can be expected when it is all pillar work. This is a drift opening and has furnace ventilation. Fifty-five miners and eleven day men are employed.

# BRIAR HILL NO. 3

Formerly the Jumbo, is located near the Briar Hill No. 2 and in future will be operated by the same company. A new mine entrance has been made during the year. In the future the coal will be hauled with an endless rope to the No. 2 tipple. It is the intention of the management to make this a machine mine in the future. A fan will be provided for ventilation. On October 15th, three men were employed.

# NICHOLSON

Is located south of Cambridge on the C. & M. R. R, and is operated by the Cambridge Fuel Co. Jerry Smith is superintendent and C. W. H. Kreikenbaum, the mine boss. Visits were made on March 25th, June 30th, and October 15th. On the first date I was compelled to take the men out of the No. 5 entry until the old works were bratticed off. I also ordered a shaft sunk at the head of the face entry. On the next date the mine was idle. On the last visit the shaft was not completed but they had a drill hole through. I ordered that the force be doubled and the work done as soon as possible. The mine has not been in satisfactory condition during the year, carelessness on the part of the management having been the cause of the trouble. This is a drift opening. Furnace ventilation is used.

#### GANDER HILL

Is located beyond the Nicholson mine in the next hill, and they are under the same management. It was visited on the same dates and was found in fair condition. On the last date there were only eleven men at work and these were engaged in drawing pillars with the view of abandoning the mine, as the coal cannot be worked because of horsebacks and faults cutting it out in all of the entries.

# FARMER'S OR CENTRAL

Is a shaft opening situated near Byesville and is operated by the Cambridge Fuel Co. Inspections were made on December 3d, February 6th, July 1st, October 14th, and 26th. On the first date it was found that Jerry Smith had superceded W. A. Smith, deceased, as superintendent. Walter Smith is mine boss. Mention was made in my last annual report of the fact that the managers of this mine utterly ignored the law in regard to sixty feet breakthroughs, basing their claim on the fact that they had violated this law for years, and therefore have a right to continue to do so. When the mine was visited on December 3d, I was given to understand that the company would not obey the law, unless forced to do so by the Mining Department. It became necessary therefore to resort to legal process. The case was tried in Cambridge on February 1st, and the mine boss was bound over to court in the sum of one hundred dollars. In company with Inspectors Beattie and Miller, we inspected the mine on February 6th, and found the law still being violated. Accompanied by Chief Haseltine we went before the grand jury and had the company indicted for violation of section 298. The case was tried before a jury in the common pleas court. All parties conceded that the law had been violated and the defense claimed that W. A. Smith, the former superintendent, was the guilty party. The jury decided that the company was liable, but the judge held that a corporation cannot be punished for a violation of the mining law when the penalty was imprisonment. As W. A. Smith had died before the case was commenced, nothing more was done in the matter. Upon my next visit I found that the breakthroughs were being made sixty feet apart. I also found that an air shaft four by four feet in area had been sunk and that electric machines were being placed in the mine. On October 14th, the date of my next visit, a fan had been erected. The



roads were in a terrible condition, being covered with mud and water. The last visit was to test the scales and they were found correct. Ninety miners and twenty-eight day men are employed.

#### CISCO

Is located at Point Pleasant and is operated by the Cambridge Fuel Co. Jerry Smith is superintendent and G. P. Bird, the mine boss. Visits were made on April 1st, July 8th, August 10th and October 20th. Although the mine has done very little work during the year, on each inspection it was in good order. The mine will soon be finished as the company does not drive through any horsebacks or faults, since they have only leased it. The life of a mine in the No. 7 seam will not be long in this locality, if entries are abandoned as soon as they run into a fault or a horseback. This is a shaft opening and has fan ventilation. Thirty-two miners and eleven day men are employed.

#### WALHOUNDING

Is located near Point Pleasant and is owned and operated by the Cambridge Fuel Co. Visits were made on November 27th, April 1st, July 8th, August 10th and October 20th. On the first visit I tested two sets of scales and found them correct. On the next date the breakthroughs between the rooms were going beyond the lawful distance, so orders were given to comply with the law. On the next date orders had been complied with. The visit made on August 10th was to investigate the cause of the accident by which John Wilson, a miner, lost his life. He was driving a mule in the regular driver's place in No. 1 face entry and when coming out with one loaded car his head came in contact with a cross-timber, killing him instantly. On the last date orders were given to make refuge holes along the entry where the tail-rope operates, also to provide two lanterns at places where the sectional area is small, as there is danger of your light going out and causing an accident. J. A. Collins is the mine boss and Jerry Smith, the superintendent. Two hundred and forty miners and thirty-six day men are employed.

# NORRIS

Is located five miles east of Cambridge on the B. & O. R. R. and was operated by the Leathernwood Creek Coal Co. Chas. McCully is superintendent and S. P. Anderson, the mine boss. I visited the mine on November 26th to investigate the cause of the accident by which Jonas Haywood, a miner, lost his life. He was at work in his room and had fired a shot in the centre which loosened a slip in the slate, which extended over the coal. When he came back to see if the coal was down, a large piece of the slate fell upon him and killed him instantly. On March 23d the mine was abandoned, nearly all of the material being left in the mine, as there was some dispute about the royalty to be paid and how the mine ought to be worked.

# ROBINS

Is a shaft opening located near Campbell's Station on the B. & O. R. R. and is owned and operated by the Robins Coal Co. Alex. Robins is superintendent and Hugh Collins, mine boss. Inspections were made on March 30th, July 10th and October 16th. On the first date I advised that a fan be used to ventilate with, instead of the steam exhaust. On the next date a twelve-foot Brazil fan had been erected and the mine was in good order. This company was the first to comply with the law in making sixty foot breakthroughs. It is a pleasure to do business with the operators and managers of this mine as they always comply with the mining laws of the state. Seventy-five miners and fifteen day men are employed.



#### FORSYTHE

Is a shaft opening located four miles east of Cambridge, on the B. & O. R. R., and is operated by the Forsythe Coal Co. E. Forsythe is superintendent and Chas. Rabe, the mine boss. Visits were made on March 24th, June 29th and October 23d. On the first date I advised board brattices erected between the main entries. A door was found leaking, which was ordered repaired. On the next date No. 2 entry was ahead of the lawful air limit. Work in this entry was stopped until the breakthrough was made. Orders were given to erect a door between the face entries. On the last date all orders had been complied with and the mine was in fair condition. Fifty-eight miners and twelve day men are employed. Fan ventilation is used.

# GUERNSEY

Is located two miles east of Cambridge and was formerly operated by the Guernsey Coal Co., but is now operated by the Cambridge & Guernsey Consolidated Coal Co. Visits were made on March 23d, June 29th and October 22d. This mine has been suspended for nearly a year. On the last visit there were twenty-five miners at work, all of whom were engaged in the first hill at the main part of the mine. The second hill had not been cleaned up, and the manager did not expect to haul any coal out of this hill until a system of electric or tail-rope haulage was provided. This is a drift opening and has furnace ventilation. W. C. Benbow is superintendent and J. F. Wilson, mine boss. Twenty-five miners and six day hands are employed.

#### SCOTTS

Is located one mile east of the Guernsey mine and is operated aud managed by the same company. Visits were made on March 24th, June 11th, June 29th and October 25th. On the first date the mine had resumed operations after being idle for five months. I ordered a boy out of the mine who was under the age prescribed by law. The next visit was made to investigate the cause of the accident by which George Poland, a miner, lost his life. He was at work in an entry pillar and had fired a shot in about the centre of the skip which was twelve feet wide and which had been undermined about four feet deep. The blast only cracked the skip as the powder blew into the solid coal, and young Poland although warned by his father of the danger, lay down to undermine the coal to the powder crack, when it fell upon him and crushed his back. He died twelve days after. On the last date the mine was found suspended and all of the miners were at work in the Guernsey mine.

## HARTFORD

Is a shaft opening located at Hartford and was formerly operated by the C. C. Coal Co., but is now operated by the J. W. Ellsworth Co. James Moss is the superintendent and mine boss. Visits were made on February 8th, April 2d, May 20th, July 7th, October 8th, 9th, 12th and 19th. The first visit was to investigate the cause of the accident by which Ellis Stockwell, a miner, lost his life. He was in the act of taking down a piece of coal at the face of his room, when a piece of slate fell and caught him. He was injured so that he died two days after the accident. On the next date I tested the scales and found them correct. On the next visit they were preparing to put in electric mining machines. The mine was in good condition. The visit made on October 8th was to investigate the cause of the accident by which John Matheny, a miner, lost his life. On this date the mining machines which are operated by an alternating current, were in use, and the power or system of this electric plant is what is known as the three phase or alternating. Mr. Matheny was talking to a fellow miner on the entry where the feed wires were located, and it is

supposed that he accidently touched one of the wires with his hand. Before help reached him life was extinct, only a few seconds from when he came in contact with the wire. Chief Mine Inspector Haseltine and I requested that the wires be placed back in grooves cut in the sides of the entry, and a board placed in front of them, so that no one could accidently come in contact with them. We also requested that the stair-way be repaired. On October 19th the stair-way was found repaired, but the wires had not been placed as ordered and were still in a dangerous condition. I wrote a notice that the wires were not satisfactorily placed and left it with the superintendent and so reported the matter to the office at once. One hundred and sixty miners and thirty-seven day men are employed. Fan ventilation is used.

## TRAIL RUN

Is a shaft opening and is operated by the same company as the Hartford mine. Inspections were made on March 27th, 28th and 31st, July 9th and October 21st. On the first date there was a fire raging in No. 15 entry, caused by a shot being fired at quitting time the night before, igniting the coal. When we arrived at eight o'clock A. M. a large force of men were laying a pipe line from the compressor, to beat back the smoke in order to locate the fire as the smoke had traveled a distance of several hundred feet against the air. When the smoke was finally beaten back the fire was seen to be at the face of the entry, whereupon the pipes were placed in a position as near the face as possible and connected to a pump and the air cut off. After twenty-four hours of hard and dangerous work, control over the fire was obtained. I returned on the 31st and found a force of men at work cleaning up and timbering the entry. Coke had been made a distance of twenty feet back from the face of the entry on both sides. On July 9th an electric plant was being erected to run the mining machines in this and the Hartford mines. On the last date the machines were in operation and the feed wires were as much exposed as in the Hartford mine. I wrote out a notice to place the wires in a safe condition and left it with the superintendent. I also ordered that the air course be cleaned out as it is in bad shape at the present time with obstructions. Henry Moss is superintendent and Wm. Rigby is mine boss. One-hundred and ten miners and forty-two day men are employed. Ventilation is produced with a fan.

LIST OF SMALL MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Owner or operator.	No. of men.	Postoffice address.
Briar Hill No. 1 Wilson Central Shaft Deep Cut Sayer.s Smith Halls Moores	Shaft Drift	D. Nicholson J. E. Wilson Eugene Scott Wilson & Burris Samuel Sayers E. N. Smith J. C. Hall J. S. Moore	2 8 2 2 1 3	Cambridge. Craig. Cambridge. Quaker City. "



# MONROE COUNTY.

## BRUCE

Is located at Aitch P. O. and is owned and operated by J. W. Bruce who is the sole manager. It is a shaft opening and has furnace ventilation. On May the 10th, I investigated the cause of the accident by which J. W. Moore, a miner, lost his life. While at work near the face of his room a slip in the slate caused a piece to fall out between the posts, falling upon the unfortunate man and killing him instantly. No one was to blame as the room was well posted but it was one of those unavoidable accidents that often occur in coal mines. On this visit the mine was in good condition. Fourteen miners and two day men are employed.

LIST OF MINES IN MONROE COUNTY THAT EMPLOY LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Owner or operator.	No. of men.	Postoffice address.
Carloton No. 1	Deid	S. R. Carleton	0	lerusalem.
				Jerusaiem.
Woodland		Wm. Woodland	Z	
Carleton No. 2	**	G. S. Carleton	1	Ozark,
Howells	Shaft	E. K. Truex	' 3	Aitch.
Dennis	"	Dennis Bros	. 2	16
Givens		B. F. Givens		Woodsfield.
Morris		Wm. Morris		"
Cotts		Geo. Cotts		66
Steel		Wm. Steel		Terusalem.
				Woodsfield.
Baker		Geo. Baker	Z	woodsneid.

LIST OF MINES VISITED IN HOLMES COUNTY DURING THE YEAR THAT EMPLOY LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	No. of men.	Postoffice address.
Harnster	' Drift	Len. Treskel	. 2	Millersburg.
Skelly		E. B. Skelly	2 2 2 2 2 3 3 8	
Myers		Bowen Bros	1 2	"
Chevellard		J. Chevellard	2	46
Fishburn		Wm. Jordan	1 2	46
Horn		John Horn	3	"
Winegard		G. H. Snyder	2	46
Mast		S. H. Mast	<u>\$</u>	"
Lookout		W. H. Gindles-	}	
1,00k0ut		berger	3	
Neiser	44	Patrick McGavern		46
Holmes Co		L. Geils	2	14
		L. Gens		Abandoned.

# JEFFERSON COUNTY.

## JOHNSON

Is a drift opening located in Island Township. In company with Chief Haseltine and District Inspectors Miller and Love, I inspected the mine on November 21st. The mine was found in bad condition. One man is employed.

# COLUMBIANA COUNTY.

#### SLOPE

Is located near Salineville and is operated by the O. & P. Coal Co. In company with Chief Inspector Haseltine and District Inspector Love an investigation was made to ascertain the cause of the deficient ventilation in the mine. We found that the engine had not power enough to create the necessary pressure as there are a great many leaks and the old works to contend with. We agreed that if the fan was removed to the new slope near the face of the entries and the old work bratticed off, much better results would be obtained. James Black is superintendent and John Whalen, mine boss.

# REPORT OF THOMAS H. LOVE,

Inspector of the Fifth District from November 15, 1895 to November 15, 1896.

Hon. R. M. HASELTINE, Chief Inspector of Mines:

DEAR SIR: I herewith respectfully submit to you a report of the Fifth Mining District for the year beginning November 15, 1895 and ending November 15, 1896. It is an unpleasant duty to report that the year just closed has been one of dissatisfaction and turmoil to the mining craft throughout the district. The mines of Carroll county have suffered from short suspensions and irregularities in their operation, while at Salineville in Columbiana county a strike concerning the manner in which the coal was screened, was inaugurated on March 9th, and continued until November 2d. At the Long Run No. 1 and 2 mines in Jefferson county, owned by the W., L. E. & P. Coal Co., where 600 men are employed, and 1,800 tons of coal are produced daily, suspended operation upon August 1st and did not resume again until November 1st. Dillon mine No. 2 belonging to the same company and employing 500 men suspended operation on October 1st and had not resumed when the year closed. The Brilliant Shaft which is located at Brilliant and owned by the Brilliant Tube & Iron Works, suspended operation July 2d and remained idle at the close of the year. During the latter portion of the year the Bustard Shaft near Steubenville was suspended, owing to their not having a market for the coal with the C. & P. R. R., as formerly. Frequent suspensions have a tendency to place the mines in bad condition, consequently I am unable to report the mines of that district in as good order as they have been in the past, or as they would have been, had the operator found a ready market for his product.

On November 26th while the fire boss was making his morning inspection of the New Shaft mine at Salineville, he discovered that room No. 5 on No. 10 right entry was on fire. It was thought to have originated from a small feeder of gas becoming ignited by a miner's blast when he quit work the evening previous. I took with me Mr. R. H. Miller, inspector of the third district, who

had been assisting me in Jefferson county. The fire presented a dangerous aspect on account of an accumulation of gas evidently having exploded during the night, which removed the timbers, thus bringing down a large quantity of slate, which so covered the burning coal that it was a difficult task to reach it. A plan of cutting around the fire to keep it from extending farther up the entry where the gas was being given off in dangerous quantities was finally agreed upon. It was surrounded in two days and nights, when a force of men was employed to work toward the center of the fire. This they did by applying water to the burning material through metal pipes laid to a large force pump. In six days from the time the fire was discovered the mine was again in operation, the fire having been entirely extinguished. Too much credit cannot be given the mine managers, as well as the workmen who were selected to do this work, for many thousand dollars of property was involved, and the daily employment of one hundred and fifty men cut off.

I am glad to say that the oil used for illuminating purposes in the mines of this district has been greatly improved, although it requires much of the inspector's time to keep pace with the adulteration that is constantly going on, and while the evil has been remedied, the attention of the inspector is called to the excessive use of explosives being used to blast down the coal. This is becoming a menace to the health of the miners, and to the general security of all who are employed in operating the mine, and will no doubt necessitate restriction in its use, or else a radical change will have to be made in the mode of conducting the air currents to the working faces. The low prices paid for mining creates a greater use of powder. When the coal is not under-cut by machinery it is generally blasted from the solid, thus white damp is generated at the room faces. More especially is this the case when the rooms have not reached the limited point for a break through.

Two fatal accidents occurred during the year, both of which were at the Dillon No. 2 mine in Jefferson county. One was caused by a fall of slate in the mine and the other by a bank car becoming detached on the incline. Below will be found the location and condition of the different mines in the three and one-half counties which comprise this district.

Thanking you kindly for the many advices during the year, Respectfully submitted,

> THOS. H. LOVE, Inspector Fifth District.

LEESVILLE, OHIO, November 15th, 1896.

## CARROLL COUNTY.

## J. H. SOMERS NO. 5

Is located on a branch of the W. & L. E. R. near Sherrodsville, and owned by J. H. Somers of Cleveland. William Maloney is superintendent and mine boss. The opening is a drift seam of coal, that of No. 7, and is worked on the donble entry system. Prior to the month of October, a furnace was used as a means of ventilation, but as this means did not afford sufficient air to dilute the vast amount of powder smoke generated during working hours, a fan was erected which gives general satisfaction. The coal is mined and hauled by the power of electricity. The Jeffrey mining machine is used to cut the coal and a thirteenton motor hauls it to the chutes. Nine visits were made during the year, the last one being on October 15th. At that time I found two hundred and twenty men employed in the mine and eight outside. I also found the mine in good condition.



## DAVIS NO. 3

Is located one mile from Sherrodsville on the same branch as that of J. H. Somers No. 5, and owned by the Fuller Coal Co. of Toledo. Early in the year William Maloney was installed superintendent to succeed John C. Allen, and Stephen Fitzpatrick to succeed John Moon as mine boss. The opening is a drift to the No. 7 coal and the double entry system of working is employed. Prior to the month of October the mine was ventilated by a fan but its being located on the southeast side, and that portion being abandoned, the fan was moved to No. 5 during the suspension of the mine, which occurred September 1st and continued until October 15th. The shaft on the west side is now used as a furnace shaft, and a north face entry is being driven to a point where an opening will be made to answer as an escapement way. The wet weather during the month of July filled the "dip" with water and the section being nearly exhausted it was entirely abandoned. The mine has not worked very regularly, hence but four visits were made during the year. One hundred and thirty miners and twenty-four day hands are usually employed.

## DAVIS NO. 1.

This mine is located on the main line of the W. & L. E. R. R. and owned by the Fuller Coal Co. Being entirely exhausted it was abandoned November 30, 1895.

## SHERRODSVILLE NO. 4

Is located across the valley from No. 5 and owned by J. H. Somers. It was abandoned December 21, 1895.

## LINDEN NO. 1

Is located at Dell Roy, and is owned by the Linden Coal Co. of Canton. John Evans acts as mine boss. The territory thought to be exhausted, the mine was abandoned August 18, 1895.

# LINDEN NO. 2

Is located on a branch of the Valley R. R., three miles east of Mineral Point, and is owned by the Davis R. R. Coal Co. of Canton. Wm. Frey is superintendent and Edward H. Jones, mine boss. The opening is a drift to the No. 5 coal, which is very irregular in formation, consequently the system of working varies to suit the dip and raise of the coal. The mine is ventilated by a furnace at the bottom of a shaft near the mouth of the mine, which did not furnish a sufficient amount of pressure to overcome the friction caused by the irregularity of mining the west section of the mine. A separate air shaft was suggested and agreed to by the management, but before being located, a fault was met with, and this section was abandoned. On the southeast side the coal is of a good thickness, and if it so continues, a shaft will be sunk at a suitable point to improve the ventilation. The mine has worked regularly during the year, furnishing employment to seventy miners and twenty-six day hands.

## LINDEN NO. 3

Is located directly over the workings of the No. 2. mine, and is owned and controlled the same as that mine. The opening is a drift to No. 6 seam of coal, double entry system of working, and furnace ventilation are employed. The surface water has been the cause of considerable expense, and has kept the roads in bad order, though this was overcome when the excessive wet weather abated. The coal is lowered over an incline-plane to the same tipple as that of Linden No. 2. Twenty-one miners and three day hands are employed.

## LINDEN NO. 4

Is located near the two former openings, and is owned and operated by the same parties. The opening is a drift to No. 5 coal, which has been very faulty, though it is thought by the management that it is becoming more regular. From ten to twenty-five miners are usually found to be employed.

## LINDEN NO. 5

Is located directly over No. 4 in the No. 6 seam of coal. The territory is quite extensive, and the mine will no doubt furnish more of the shipment of coal from this point than the other openings, as the seam is more regular. The coal is lowered over an incline-plane to the No. 4 road, over which it is taken to the chutes. Two visits were made during the year, finding twenty-five miners and three day hands employed, and the mine in fair order.

## BEATTIE

Is located two miles south of Magnolia, and owned by the Beattie Fire Clay Co., with J. F. Bolander as manager. The opening is a drift to the No. 5 coal, which varies in thickness from three to five feet. Two visits have been made during the year, the first of which was on January 31, when I found the ventilation deficient and notified the manager to sink an air shaft. On April 1st, I found that the shaft had been sunk but the entry leading to it was not driven up. I learned that the connection was made in a short time after. Eight miners and two day hands are employed.

#### ELDER

Is located two miles north of Dell Roy, on the main line of the C., C. & S. R. R., and owned by Jones and Owens. The opening is a drift to No. 7 seam of coal, and at this point was but a pocket, and was cut off by a fault. In the month of June the entry running west took a squeeze, and that portion of the mine had to be abandoned. At this time twenty-five miners were employed, but when the year closed but four men engaged in drawing the main entry pillars were employed.

# SCOTTSING. 1

This mine is located at Tabor on the line of the C., C. & S. R. R., and on April 1, was purchased by the Mardy Coal Co. from Long Bros., J. L. Morris is manager. The opening is a drift to the No. 7 seam of coal, and is ventilated by a furnace. The coal is of splendid quality, but is frequently disturbed by faults, which have been the cause of depriving the operation of any regular system, hence the mine is not at all times found in good order. An opening has been made on the north side which, when properly leveled to lead the water from the dip, will improve the mine. The future operation depends entirely on the development of the new territory. Twenty-five miners and five day hands are employed.

# ALLEN SHAFT

Is located at Dell Roy and owned by C. M. Beardsley, with I. N. Russell superintendent and mine boss. The opening is a shaft 76 feet deep to the No. 6 seam of coal. It is worked on the double entry system and is ventilated by a fan. In the latter part of November the shutes were burned, but were soon rebuilt causing only one month's delay. The coal is principally blasted solid, consequently a large volume of air is required to dilute the powder smoke. There is also a large accumulation of water which is of much expense to the owner and inconvenience to the miner.

The lump coal is loaded on cars and the slack is carried by elevators to ovens, where it is made into coke and shipped to Cleveland. It is sold for domestic fuel and is said to be of good quality. Six visits were made to the mine during the year, finding from forty-six to sixty-five miners and sixteen day hands employed.

#### HUSTON

Is located near Carrollton, and is the property of Huston & Fawcett. The opening is a drift made into seam of coal No. 7, and has natural ventilation. The mine usually employes from six to ten miners, but owing to the suspension of the Carrollton Brick works, only three are now employed.

## CLAY MINES OF CARROLL COUNTY.

#### MINERVA

Is located near Minerva, and owned by the Minerva Fire Clay Co. The clay is taken from a drift opening on the opposite side of the "Sandy" creek to the factory, where it is made into paving brick. The works have been in operation but a few weeks during the year.

#### SANDY VALLEY

Is located at Malvern and owned by the Canton & Malvern Fire Brick and Paving Co., with J. S. Melbourne as manager. The opening is a drift, and a fire basket is used as a means of ventilation. The clay is used to manufacture paving brick, but the factory has been suspended a good portion of the year, and consequently the mine has been idle. When in operation, five miners are employed.

## MALVERN NO. 1

Is located at Malvern, and owned by the Malvern Fire Clay Co., with C. J. Deckman manager. The opening is a drift and is ventilated by a furnace. This mine has furnished from five to eight miners with almost steady employment during the year. Five visits have been made, the mine being found in good condition each time. The clay is used in the manufactory of paving brick.

## BEATTY

Is located near Magnolia and is owned by the Beatty Fire Clay Co., and managed by J. F. Bolender. The opening is a drift to the "Flint" clay and is used in the manufactory of furnace linings, building tile, and fire brick. Two visits have been made, finding the mine in fair order. Six miners and two day hands were employed.

THE FOLLOWING IS A	LIST OF	MINES VIS	SITED, EMPLO	YING LESS '	THAN TEN	MEN
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Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners.	Postoffice address.
Ball	"	John G. Davis F. Moughiman John Ebersole	1 3 2 2 2 2 3 2	Leesville  " Sherrodsville Carrollton Sherrodsville " Algonquin "

## COLUMBIANA COUNTY.

## NEW SHAFT

Is located in the town of Salineville and owned by the Big Vein Coal Co. of Cleveland. Samuel Madison is superintendent and John Gallagher the mine boss. The opening is a shaft to the No. 7 coal, which here is sixty-four inches in thickness and of good quality. The portion of the basin which is here worked is lower than any of the adjoining mines in the same seam, consequently much water is met with. The roof is of a dangerous character owing to great quantities of gas being given off from the material overlying the coal, which causes the slate to break down to sandrock above. To avoid accidents, much care and expense is required. Although large quantities of fire damp are generated, no safety lamps are used, except as a means of test by the fire viewer. Canvas is used to convey the air to the face between break-throughs, and sufficient air is carried to the faces to dilute the gas. A large Murphy fan is used to supply the ventilation, and so far furnishes an abandant supply. During the eight months that the mine was on a strike, an electric plant was installed, by which the coal is now principally mined. Jeffrey Mining machines are used and cut the coal freely. The chief obstacle is in rooms where the top is so affected by the gas as not to allow sufficient space in which to set the machine. This is the only barrier to machines being an entire success in this seam of coal. The main haulway dips sixty-two feet to the mile, and during the early portion of the year an additional engine and tail rope line were erected, which is a great improvement to the handling of the coal. Five visits were made during the year, and each time I found the mine well ventilated and conducted in a skillful manner. Seventy six miners and forty-two day hands are employed.

## OLD SHAFT

Is located at Salineville and is owned by the O. & P. Coal Co. of Cleveland. When last in operation, J. H. Strabley was the lessee and manager. The solid coal is supposed to have been exhausted. The Big Vein Coal Co. have installed an electric pump, which is located near the bottom of the shaft, and by this means the water is kept from accumulating sufficiently to flood their mine which is adjoining.

## SLOPE

Is located at Salineville and is owned by the O. & P. Coal Co. of Cleveland. James Black is superintendent and John Whalen is mine boss. The opening is a slope to

the No. 7 seam of coal, and the double entry system of mining is employed with fan ventilation. The strike of the miners concerning the manner of screening the coal also affected this mine from March 9th until November 2nd. During this interval some valuable improvements were made. Mr. J. B. Frease, M. E., who is the company's engineer, with a force of men undertook to improve the mine so that it would meet the requirements of the law. The air course which parallels the main entry was enlarged for a distance of 400 feet to an area of forty square feet, giving a sufficient distance to erect double doors on the main entry, after which the current is permitted to take both entries. The fan outside was repaired so that it would run at a higher speed and carry the air to the fan in the mine. Many stoppings were erected, where the air had formerly been forced through into the abandoned workings of the Empire and Farmer mines. The expense of overcoming former neglects in this mine has been large, and I am glad to say that when the year closed, the sanitary condition of the mine was better than ever before. Five visits were made during the year. One hundred and twenty miners and twentyone day hands are employed.

#### HAVS

Is located in the town of Salineville, and owned and managed by J. H. Strabley. The opening is a drift to the No. 7 coal, and having many connections to adjoining mines, is ventilated by natural sources. In the early portion of the year, twenty-five miners were employed. A greater portion of them were engaged in drawing pillars, but no work was done after the miners came out on a strike March 2nd. It is said that unless more territory is developed, the mine will soon be abandoned.

## FARMERS

Is located at Salineville and is owned by the Brown Coal Co., with John Brown as manager. A temporary injunction was granted by the courts of Columbiana county last year to restrain the company from drawing pillars from under a portion of the town. The case was heard in the May term of court, and had not been decided when the year closed. This company granted the miners their demand in regard to the size of screen early in the spring. Eight miners were employed in a portion of the mine that was not under the town during the strike.

## ANDERSON

Is located in Salineville and is owned by Richard Hetherington, Sr. Richard Hetherington, Jr., acts as manager. The opening is a drift to the "Strip Vein." The mine is worked on the single entry system and is ventilated by a furnace. During the early portion of the year five miners were employed, but when the year closed the number had increased to twenty.

# FOSTER

Is located near Salineville on a branch of the C. & P. R. R. It is owned by Morrison Foster. Davis Simpson is superintendent and mine boss. The opening is a drift to the "Strip Vein," and it is worked on the single entry system, ventilated by a furnace. This mine having a large excavation and being worked on this system, makes it a difficult task to ventilate properly. It usually is in a fair condition when all the doors and stoppings get proper attention. No improvement can be made on the manner of conducting the air to the faces without the strictest observance on the part of the one in charge. It is my duty to impress this on the mind of the foreman from time to time, which I have done, but I cannot say that this or any other mine worked on this system can be properly ventilated and work a large number of men.

#### CEDAR HILL

This is a new mine located on the line of the C. & P. R. R., one mile east of Salineville. J. H. Strabley is the owner and manager. The opening is a drift to the No. 7 seam of coal, which at this point is about three feet in thickness. The main entry is being driven ahead with a view of reaching a point where the drilling is said to show that the basin of coal is thicker. Six miners are employed, and thus far natural ventilation is used.

## PINE GROVE

Is located two miles east of Salineville on the main line of the C. & P. R. R., and is owned by the Thorndon Coal Co. The mine has not been in operation for two years.

# CLAY MINES OF COLUMBIANA COUNTY.

#### K. T. & A.

Is located at East Liverpool and owned by Knowles, Taylor & Anderson. Thomas Anderson is manager. The opening is a slope with fan ventilation, and an engine and rope are used to pull the clay to the large factory where it is made into sewer pipe. The mine has not worked as steadily as in former years, though it was running when the year closed, employing six miners. It was found to be in good condition when inspected on August 11.

#### WALKER

Is located between Wellsville and East Liverpool, and is owned by the Walker Fire Clay Co., with Thomas O'Brien as manager. This mine consists of two parallel drifts 300 feet apart, which are connected for ventilation. Ten miners are usually employed, and the clay is used in the manufactory of sewer pipe. Two visits were made during the year, and on each occasion I insisted that greater care be taken to prevent loose slabs of slate from falling on the miners, who push the clay out by hand. The slate overhanging the clay is so affected by the air that it falls in large quantities, thus it has been a source of much danger.

## LYTHE NO. 1

Is a drift opening at Wellsville and owned by John Lythe & Son. The ventilation is natural, though good for the number of miners employed. A defective portion of the main entry has been abandoned, and a new one driven in on the south side is a greater means of safety to the three miners who are employed. Alex Smith is foreman.

## LYTHE NO. 2

Is located near No. 1 and owned and controlled by the same Co. The opening is a shaft of 180 feet in depth. In the month of September an escapement was completed which furnishes a ready means of escape, and improves the ventilation. Small quantities of fire-damp are given off, and considerable care is required in the management of the mine. Five miners are employed.

## VULCAN

Is a drift opening located near Wellsville and owned by the Vulcan Fire Clay Co John McNutt is superintendent and David Morgan is the mine boss. The ventilation is principally through a connection, which has been made with the Buckeye mine, although an air shaft is also used. The clay is used in the manufactory of fire-brick. Five miners are employed, and the mine is in good order.

## BUCKEYE

Is located near the Vulcan and owned by the Buckeye Fire Clay Co., with John Davis foreman. The opening is also a drift. The ventilation is by a connection to the abandoned coal mine which is immediately above. The mine is found to be in excellent condition, and is worked on a practical system. The clay is used in the manufactory of fire-brick, and from eight to ten miners are steadily employed.

#### FURNACE

Is located at Salineville and is the property of the Furnace Fire Clay Co. It has been suspended the entire year.

## HARRISON COUNTY.

## MESSENGER.

Is located at Bowerston, and owned by the Messenger Coal Co. of Massillon. J. H. Simons is manager. The opening is a drift, worked on the double entry system, and is ventilated by a furnace. The mine has not worked regularly during the year, owing to a lack of market for the coal. Thirteen miners and four day hands are employed. On August 6, by cloud burst, the mine was filled with water which rushed down the Valley, and had the miners been at work, all would have perished. The drift mouth is but little above the level of the Valley, and the escape being on the same level, I ordered that a slope be provided on the west side as a means of escape, but as little work had been done at the mine that fall, no improvements have been made.

LIST OF DOMESTIC MINES EMPLOYING LESS THAN TEN MEN VISITED DURING THE YEAR.

Name of mine.	Kind of opening	Name of owner or operator.	Number of miners.	Postoffice address.
Hines No. 1	Shaft Slope Shaft Drift ""  "" "" "" "" "" "" "" "" "" "" "" ""	O. C. Hines Jas. McCane John Busby Geo. McManus M. Hoobler S. Lowmiller C. B. Best Otis Leggett J. C. Jamison Wm. Hedges Luther Hedges Luther Hedges D. F. Hess Wilson Nash Geo. Czatt I. Hogland W. F. Blackwell John Ramsey E. C. Rodgers Wm. Skelley James Shepler	2334442233543482222	Jewett.  Bowerston. Jewett.  Germano.  Hopedale. Cadiz.  Freeport.  Tappan.  Hattonia.  Hopedale. Bowerston.

# JEFFERSON COUNTY.

## LONG RUN NOS. 1 & 2

Are located in Mt. Pleasant township, on a branch of the W. & L. E. R. R. They are owned by the Wheeling, Lake Erie and Pittsburgh Coal Co. They are drift openings and are worked on the double entry system, ventilated by fans. J. J. Roby is superintendent and Wm. Fitzgerald is the mine boss. The seam of coal worked is the No. 8 or Pittsburgh, over which lies a very dangerous draw slate, which requires special care in propping, though no fatal accidents have occurred. During the early portion of the year, it was discovered that the main haulway in the No. 1 opening was in a dangerous condition, owing to the shale which overlies the coal being so affected by the air that it was continuously dropping. A man was employed to walk the track and sound the top, and where it proved to be loose to have it taken down. This, however, did not seem to me to be the safest or most economical plan, consequently I consulted the superintendent concerning a plan of timbering, which was adopted, where the shale which is from four to seven feet above the coal had not already fallen to the lime rock. The entire plant suspended operation on August 1st and did not resume until November 1st, thus throwing out of employment 600 men. It was a loss of 1,800 tons to the company. It was found when work was resumed, that the suspension had left the mine in bad condition. It will require some time and money to repair the mine, so as to permit the employment of a like number of men. An electric plant is being installed for a haulage power. The No. 1 mine had not resumed operation when the year closed. The territory of the No. 2 mine is nearly eshausted, and should it be operated, will probably be abandoned inside of the next year.

# DILLON NO. 2

Is located at Dillonvale and is owned by the Wheeling, Lake Erie and Pittsburgh Coal Co. It has the same management as that of Long Run. The opening consists of two drifts, one of which is opened on the coal faces, and the other on the butts. The openings are connected for ventilation, which is affected by means of a fifteen foot Brazil fan. The seam of coal worked is No. 8 or Pittsburgh, over which is the same draw slate as at Long Run. One fatal accident occurred during the year, whereby Alex Bozenski, who was injured by a fall of draw slate on July 14th, died at the Wheeling Hospital on August 8th. The main butt entry connects the workings of the Laurelton mine, and the accident occurred in the second room in No. 3 Laurelton entry. This is a large and productive mine, and has so far been kept in excellent order. The mine suspended operation on October 11th, and had not resumed when the year closed. Prior to the suspension, five hundred miners and fifty-six day men were employed. The mine has a daily output of 2,400 tons of coal. Four inspections have been made. Willford Sowden, is mine boss.

## BRILLIANT

Is located at Brilliant and is owned by the Brilliant Tube and Iron Works, with Richard Humes, as manager. The opening is a shaft to the No. 7 coal, which here is four feet in thickness. The system of working is that of the "County of Durham" and is quite successful. A furnace is used as a means of ventilation and gives excellent results for the reason that it is connected with a shaft 260 feet in depth. The mine resumed operation January 21st, furnishing coal to the large iron plant with which it is connected. Thirty miners and eleven day hands are employed. On July 2d, by reason of some financial difficulty, the entire plant suspended, and so remained when the year closed. Three inspections were made.

## KELLEY NO. 2

Is located at Warrenton, on the C. & P. R. R., and is owned by the Kelley Coal Co. The opening is a drift to the No. 8 seam of coal. It is worked on the double entry system and is ventilated by a furnace. The coal in this mine is five feet in thickness and seems to be of a superior quality to that in the adjoining mines in the same seam. The drawslate is also harder, and thus it is less dangerous. The mine has worked with fair regularity during the year and furnished employment to from forty-five to seventy miners and eight day hands. The coal seam is 400 feet above the valley, and thus an incline-plane is used to transport the coal from the mine to the tipple. Three visits have been made during the year. B. J. Lewis is superintendent and Joseph Robinson, mine boss.

## M'FADYEN

Is located near Miller Station, on the P. C. C. & St. L. R. R., and is owned by the Mc-Fadyen Coal Co. The opening is a drift to the No. 8 coal, which here is four feet four inches in thickness. The mine is located three miles from the R. R., and the coal is hauled over a tram road with a small steam locomotive. The system of working is double entry, and the room and pillars are left of sufficient size to resist the weight while they are being drawn, consequently all the coal is taken out. In order to do this the rooms are driven up nineteen feet wide, and the pillars are left fifteen feet. I would advise, however, a stronger pillar where the lime rock is thicker, as here it is about three feet in thickness. This system requires a little more yardage than some of the double entry mines, but the fact of all the coal being reclaimed, more than pays the additional cost. Three visits have been made during the year. Fifty miners and eight day hands are employed. Isaac Talbot is superintendent and James McCormick, mine boss.

# HIGH SHAFT

Is located at the city of Steubenville, and is owned by the Steubenville Coal and Mining Co, with Wm. Smirthwaite as manager. The opening is a shaft to the No. 7 seam of coal which is worked on the "County of Durham" system, and a large centrifugal fan is used as a means of ventilation. The shaft is 240 feet deep and was sunk in the year 1857. The mine at one time had R. R. contracts, and employed a large number of men, but now the trade is confined to the city where it is used for domestic purposes. Only thirty miners and eighteen day hands are employed. Fire-damp is given off in large quantities, but is diluted with a supply of air which is well conducted. The haul is very long and so far mules are the only means of haulage. Three visits have been made during the year, and each time I found the mine in good condition, and under good discipline.

# GRAVEL SHAFT

Is located at Steubenville and owned by the Riverside Iron Co. The shaft is 100 feet deep to the No. 7 coal, and the system of working is that of the "County of Durham." The coal is used at the large iron plant. When it is in operation, six miners and two day hands are employed, with Thomas Doyle, as manager.

## BUSTARD

Is located two miles above Steubenville and is owned by the Jefferson Coal Co. The shaft is ninety feet in depth to the No. 7 coal, which here is four to five feet in thickness. The system of working is that of the "County of Durham," and a furnace is used as a means of ventilation. On April 10th, John Keiley resigned as manager,

and D. F. Robinson was employed to take charge, who was succeeded again by Mr. Keiley on November 9th. While Mr. Robinson was in charge, the shaft was retimbered, which caused a suspension of the mine for several weeks, during which time a squeeze came on a portion of the works greatly affecting the main entry. It was caused by drawing some pillars and not taking them out uniformly, which brought the weight on the entry pillars, together with the fact that a large accumulation of water had softened the clay beneath the coal. After the squeeze had settled, a reduction in the price of mining created another suspension, and when the year closed, only a few day men were employed in repairing. While in operation, thirty-five miners and nineteen day hands were employed.

## BERGHOLZ

Is located at Bergholz, which is the terminus of the Lake Erie, Alliance and Southern R. R., and is owned by Mrs. H. W. Ford of New York City. The opening is a drift to the "Strip" vein, and is worked on the single entry system. Dan Sheckler is lessee and manager. During the month of August the mine was flooded, which caused considerable delay in the operation. When the year closed eleven miners and three day hands were employed. The mine is not in the best of condition, and I have given notice to the owner to have a survey made and the mine placed in a lawful condition.

#### NEW SLOPE

Is located at Bergholz, and is owned by John G. Kirk. The opening is a slope to the "Strip" vein. It is worked on the single entry system and is ventilated by a fan. Three inspections have been made during the year, finding the mine in good condition. It employs twenty miners and three day hands.

## CO-OPERATIVE

s located two miles above Bergholz, and is owned by the Co-operative Coal Co. The mine has worked very little during the past year. Very recently it was purchased by the Ruthven Coal & Coke Co., with E. E. Hicks as manager. The new company expects to operate the mine at a much greater capacity than ever before. A new electric plant for cutting the coal is talked of and will probably be installed as soon as the mine can be made sufficiently large.

## ROLLING MILL NO. 2

Is located at Irondale and is owned by Wallace, Banfield and Co. Isaac Thomas has recently succeeded Wm. Nightingale as manager. The opening is a drift to what is known in this vicinity as the "Big Vein," and a large furnace is used as a means of ventilation. The double entry system of working is employed, and the rooms are being cut off by cross entries to suit the thickness of the coal, as it varies from three to six feet. Petroleum oil comes down through the rock which overlies the coal, and I was compelled to give orders against its use for illuminating purposes in the mine. Twenty-seven miners and eight day hands are employed.

# DIAMOND NO. 2

Is located near Hammondsville on the C. & P. R. R., and is owned by S. M. & W. G. McCullough. Henry Welch has succeeded Isaac Thomas as manager. The opening is a drift to the "Big Vein." It is worked on the double entry system, and is ventilated by a furnace. The basin of coal at that point seemed to be a mere pocket, but as the entries are being driven through the thin coal on the south side the coal is becoming thicker, so that it is thought it will resume its regular thick-

ness, which is five feet. Two miners and two day hands are employed, and the coal is lowered over an incline plane to the schutes at the railroad.

#### CALUMET

Is located at Calumet and is owned by the Calumet Fire Clay Co. Samuel McAdoo is superintendent and John Wynn, mine boss. The opening is a drift to the "Rodger Vein" and is worked on the single entry system. The heavy squeeze which occurred last year has not been sufficiently overcome to have a perfect system of ventilation, though a connection has been made to the Conner mine which gives temporary relief, while arrangements are being made for a more available connection. The coal is used at the large sewer pipe plant for burning kilns. Twelve miners and two day hands are employed.

#### CONNER

Is located at Calumet and is owned by the Excelsior Fire Clay Co., with Thomas McNamee as manager. The opening is a drift to the "Rodger Vein," and is worked on the single entry system, and is ventilated by a furnace when in operation. I found the mine in excellent condition, with from eight to twelve miners employed, but during the latter portion of the year the mine was entirely suspended.

## **JEFFERSON**

Is located at Toronto and is owned by Kennedy, Kling and Co., with Chas. Young as manager. The opening is a drift to the "Rodger Vein" and has been suspended since June 1st.

## OHIO VALLEY

Is located near Toronto and is owned by the Ohio Valley Fire Clay Co. George Dunker has succeeded Ottis Sealey as manager. The opening is a drift to the "Rodger Vein." It is worked on the single entry system, and by having three different openings to the surface is ventilated by natural sources. The coal is lowered over an incline plane to the large sewer pipe factory where it is used for generating steam and burning kilns. Nine miners and two day hands are employed.

## FOREST CITY

Is located at Toronto and is owned by the Forest City Fire Clay Co. W. B. Francey is superintendent and S. F. Hanna, mine boss. The opening is a drift to the "Rodger Vein," and is worked on the single entry system and ventilated by a furnace. The mine was suspended until May 1st, when it resumed operation and run a short time, when it suspended again, but during the latter portion of the year worked a reduced force of men. Eleven miners had formerly been employed.

# GT. WESTERN

Is located near the Forest City, in the same seam of coal and is worked on the same system. It is owned by the Gt. Western Fire Clay Co. R. M. Francey is superintendent and James Duke, mine boss. The mode of ventilation is by furnace which is found to be fairly good. A suspension of this mine occurred in November and it did not resume until May 1st. On the 28th of the same month I found the mine in good order with eleven miners and one day hand employed.

## MARKLE

Is located below Toronto and has been purchased by Kennedy, Kling & Co. from the Markle Sewer Pipe Co. The opening is a drift to the "Rodger Vein," and is

worked on the single entry system with furnace ventilation. The coal is used at the sewer pipe works, which has not run steadily during the year, hence but five miners are employed. Chas. Young is superintendent and Wm. Kiuley, mine boss.

#### WILSON

Is located on Coal Hill, three miles southwest of Steubenville and is owned by Henry Wilson, who is also manager. The opening is a drift to the No. 8 coal and is worked on the double entry system. The main entry has been driven through the hill on the east side, and the miners working near the surface are supplied with natural ventilation. From seven to ten miners are employed and the coal is wagoned to Steubenville and sold for domestic fuel.

## HILL TOP.

Located over the Calumet, and owned and controlled by the same company The opening is a drift worked on the single entry system and has natural ventilation. This is affected by means of an opening on the west side of the hill. When in operation the mine employs eight miners and two day hands. It has been suspended the greater portion of the year.

# CLAY MINES OF JEFFERSON COUNTY.

#### CALUMRT

Is located at Calumet and is owned by the Calumet Fire Clay Co. Samuel McAdoo is superintendent and John Wynn, mine boss. The opening is a shaft. It was formerly ventilated by a Hayden fan with a connection to the Conner mine for a discharge, but a steam boiler has been set at the bottom of the shaft on the west side and the exhaust steam is now used as a means of ventilation. A separate space is also provided in the shaft as a means of escape. Twelve miners and six day hands are employed. This is the largest clay mine in the Valley.

# CONNER

Is located near and connected with the Calumet and is owned by the Excelsior Fire Clay Co. P. Conner is superintendent and James Conner, mine boss. The opening is a drift which dips considerably to the west, consequently a large amount of water is pumped to the surface. A former squeeze on the main entry has been the cause of much expense and as the territory is nearly exhausted at this point the opening will probably be abandoned soon. The mine has not worked steadily during the year but when in operation six miners are employed.

## GIENT

Is located at Toronto and is owned by the Toronto Fire Brick Co. The opening is a shaft from which clay is taken and manufactured into paving brick. Edward Nicholson is superintendent and W. J. Conn mine boss. It employes six miners and one day hand. A connection to the Forest City mine will soon be made and a fire basket can then be used at the bottom of the air shaft to improve the ventilation.

## FOREST CITY

Is located at Toronto and is owned by the Forest City Fire Clay Co. W. D. Francey is superintendent and James Milne mine boss. The opening is a slope and is con-

nected with the Gt. Western for ventilation. The large sewer pipe plant where the clay is used has not worked regularly during the year. When the year closed, however, it was in full operation and six miners and three day hands were employed. The mine is fairly well ventilated and is in a fairly good condition.

#### GT. WESTERN

Is located near the Forest City mine, to which it is connected for ventilating purposes. It is owned by the Gt. Western Fire Clay Co. R. N. Francy is superintendent and Daniel Hinkle mine boss. Eight miners and two day hands are employed. The opening is a shaft, half of which is used for a cage, and the other half for a back balance and stair-way. I suggested that safety catches be put on the cage as men were riding up and down on it, to which the superintendent consented. The workings of the mine are in excellent condition.

#### EMPIRE

Is located at Empire and is owned by the Empire Fire Clay Co. Samuel McAdoo is superintendent and Thos. Dray mine boss. The opening is a shaft fifty feet in depth and is ventilated by exhaust steam. A separate opening has been made for an intake, and one for a traveling way. The mine has worked with fair regularity during the year. It employs six miners and two day hands and is in good condition

## ENTERPRISE

Is located near Empire and is owned by the Minor Fire Clay Co. S. D. Minor is superintendent and Samuel Murray mine boss. The opening is a drift with natural ventilation. A second opening has been made, but because of a break in the surface above, it could not be held with timbers, consequently it is closed. A temporary opening is being used for ventilation, until a permanent one can be provided. Five miners and two day hands are employed.

## FREEMAN

Is located at Freeman Station and is owned by the Freeman Fire Clay Co., with John Wasly as manager. The mine consists of two openings which are connected for ventilation. The drifts are 300 feet apart. Near the mouth of these are located the sewer pipe factories, one of which has been suspended since December, reducing the number of miners to four, which is one half the number previously employed

## CONGO

Is located near Empire and is owned by the Congo Fire Clay Co. The mine has been idle the entire year.

## **JEFFERSON**

Is located at Toronto and owned by Kehnedy, Kling and Co. The opening is a shaft with exhaust steam as a means of ventilation. It suspended operation in December and was yet idle when the year closed.

# NONE SUCH

Is located one mile above Empire and owned by Hinkle and Stratton. The opening is a shaft and is ventilated by exhaust steam. On January 8th the large brick factory where the clay is used burned and was rebuilt in the month of June, at which time three miners and two day hands were employed.

## OHIO VALLEY

Is located near Toronto and owned by the Ohio Valley Fire Clay Co. W. F. Myers is manager. The opening is a shaft with exhaust steam as a means of ventilation. The mine has worked steadily during the year, employing six miners and two day hands.

#### WALLACE

Is located at Hammondsville and is owned by R. G. Wallace & Son. The opening is a slope and usually employs three miners, but suspended operations early in the year.

## MARKLE

Is located below Toronto, at Markle Station and has recently been purchased by Kennedy, Kling & Co. The opening is a shaft and as it has been idle a great deal since being sunk the section mined out is small. I ordered that a second opening be made which was agreed to by the management and is being done. Chas. Young is in charge with five miners and one day hand employed.

#### ISLAND SIDING

Is located near Brown Station and is owned by Smith and Hannon of Toronto. It employs two miners but has been suspended most of the year.

The following is a list of small mines that have been visited and which employ less than ten men.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners.	Postoffice address.
Tweed	Drift	J. D. Tweed & Son	4	Steubenville
Bates No. 1		E. W. Vandine		"
Bates No. 2		John Bates	3	"
Cable			4	Wintersville
Velson No. 2		William Nelson		Steubenville
rushel		John Trushel	6	Unionport
Wallace	"	R.G.Wallace & Son	4	Hammondsville
reeman	"	Freem'n F. Clay Co	6	Freeman Station
Wallace		Wm. Downee	4	Irondale
McBain		John McBain		"
Wolf		F. B. Wolf	2	Smithfield
Silbreath		John Gilbreath	4	"
Berwine		Wm. Berwine	2	"
arr		J. H. Carr		"
Brown	"	Ed. Brown	2	Bloomfield
Hicks		Chas. Jones	3	Fairplay

# REPORT OF JOHN P. JONES,

Inspector of the Sixth District, from November 15, 1895, to November 15, 1896.

HON. ROBERT M. HASELTINE, Chief Inspector of Mines.

MY DEAR SIR: I have the honor of submitting a report of the mines in the Sixth Mining District of Ohio, showing their condition, the number of visits made

by the Inspector, and the changes and improvements made for the year ending November 15, 1896.

The year passed has been one of depression and inactivity in the business world, and it is the judgment and belief of those whose opportunities for observation are excellent, that the coal trade has suffered immeasurably the blighting, blasting influence of the prostration. In consequence of this we have encountered a disposition on the part of the mine managers to trench on the required expenses necessary to maintain that standard of sanitary excellence the department is striving to establish. We are therefore unable to report a very marked improvement in the mines of this district.

We are still annoyed by that vicious, filthy, smoking oil, yet a tendency to use a better class of oil is observable. The commendable practice of closing disused breakthroughs is rising in favor among the mine managers. The antiquated methods of ventilation by furnace and fire-basket are slowly disappearing, being superceded by the infinitely better method of "Fans."

Complaints have been made to the department that mine workers are sometimes guilty of committing a nuisance in the air-courses. It seems almost incredible that men should be so wanting in sense, so destitute of honor as to permit such a filthy, inhuman and diabolical deed. Punishment should be fixed at banishment from the mines. We have finally succeeded in wiping out that practice of firing at noon.

I am under obligations to all who aided the department in forcing the law, and to you, for aid and advice.

Yours very truly,

JOHN P. JONES.

North Lawrence, Ohio, November 15, 1896.

## STARK COUNTY.

## LAKE ERIE NO. 1,

Situated near Osnaburg village, on the branch of the Cleveland, Canton & Southern R'y. It is owned by the Monongahela and Lake Eric Coal Co. John T. Phillips has entire supervision. This is a drift opening, penetrating the Middle Kittanning or No. 6 seam of coal. They have furnace ventilation. It is mined on the "Three entry" plan. Forty-eight miners and nine day men are employed. The condition, of the mine has been greatly improved by the sinking of an air-shaft and the dividing of the air-current. Five visits were made during the year.

## LAKE ERIE NO. 2

Is located near, and is owned and managed as No. 1. It is also a drift opened in the same seam. This opening will curtail the hauling distance and relieve the trouble from water.

## YOUNGS SHAFT,

Located in the village of East Greenville, on the Wheeling & Lake Erie Ry. J. F. Pocock is both owner and manager. Christian Kouth is the mine boss and superintendent. This is a shaft mine 248 feet deep. The double entry system is the method of working. Steam exhaust and a fire-basket supply the air. The No. 1 seam, five feet in thickness, is being removed by 150 miners and eighteen day men. The condition of the mine is agreeable. Four visits were made.

## MINGLEWOOD SLOPE,

Located in the village of North Lawrence, on the Pittsburg, Ft. Wayne & Chicago Ry. This is a slope mine made into the No. 1 or Massillon seam of coal, being fou

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and one-half feet in thickness at this point. Mr. James Mullins is the owner and Wm. Baumgardner has entire supervision. This mine is worked on the double entry system with fan ventilation. One hundred and eighty miners and 40 day men are employed. There have been two windways made curtailing the distance from the inlet to the fan, giving corresponding advantage in the ventilation of the mine. Ten visits were made.

#### MINGLEWOOD SHAFT

Situated near the slope, owned, managed and operated by the same firm under the same conditions. A new fan placed here did not give the results contemplated, owing to the absence of the requisite sectional area to accommodate the increased volume of air. Forty miners are engaged.

## MINGLEWOOD NO. 2.

A shaft mine sunk into the No. 1 seam. It is filled with water, awaiting the acceleration of the coal trade.

#### ANDERSON.

Situated on the Wheeling & Lake Erie Ry., near the village of East Greenville. The Howells Mining Co. are owners and managers. John Howells is superintendent and Chas. Graybill, the mine boss. This is a shaft mine into the No. 1 seam, with steam exhaust ventilation and is worked on the double entry system. Thirty-five miners and nine day men are engaged robbing pillars. Four visits were made during the year.

#### MILLER HILL.

Located in the city of Massillon, on a branch of the C., L. & W. Ry., it is a shaft mine, 120 feet deep. The No. 1, or Massillon seam is worked. The Howells Mining Co. own and Mathew English manages it. The wide entry system with a brattice in the centre is practiced, thus giving a current of air at the face of the entries.

## PIGEON RUN.

Located in the village of Pigeon Run. The product is shipped on the Cleveland Lorain & Wheeling Ry. This is a shaft mine, 150 feet deep, owned by the Howells Mining Co., with Wm. James as superintendent and Edward English, mine boss. Forty miners and ten day men are employed removing pillars. Four visits were made during the year.

## ROSE HILL NO. 1

Is a drift opening near Justus on the Cleveland, Canton & Southern Ry. The No. 3 seam of coal is mined, ranging from two and one-half to three feet in thickness. Evan J. Evans is superintendent and Thos. Edwards is mine boss. It is owned by the Howells Mining Co.

## ROSE HILL NO. 2.

Located near No. 1. It is the same kind of an opening and is owned and managed by the same company.

## MASSILLON CITY

Is a shaft mine 175 feet deep, located near East Greenville on the Wheeling & Lake Erie Ry. No. 1 seam five and one-half feet in thickness is worked, usually by single entries. Steam exhaust was the mode of ventilation before the flood of water compelled the company to abandon it permanently. Sixty-five miners and fifteen day men were engaged. The Massillon City Co. owned it. James Wilson was superintendent and Edward Penman, mine boss.

#### **BLM RUN**

Is a shaft mine situated near the village of Elton, on the Cleveland, Lorain & Wheeling Ry. It is 150 feet deep and penetrates the Massillon seam, that measures five feet at this point. Steam exhaust is used for ventilation. James Wilson is superintendent and Wm. Penman, mine boss. This property is owned by the Elm Run Coal Co. Some of the entries are single with all the attending hardships to the miner in reference to the ventilation. Two visits were made. Sixty-four miners and twenty-five day men are employed.

#### NUTWOOD.

Located near Elton on the Cleveland, Lorain & Wheeling Ry. This is the property of the Nutwood Coal Co. Wm. Penman is superintendent and Edward Penman, mine boss. The method of ventilation is steam exhaust. The entries are driven double. The seam is No. 1. The shaft is 150 feet deep. A new air-shaft for air and an escapement way were made.

## CAMP CREEK.

Situated near Justus on the line of the Cleveland, Lorain & Wheeling Ry. It is owned by the O. Young Coal Co. Joseph Collier has entire supervision. This is a shaft opening made into the Massillon seam that presents the peculiar characteristic of being interstratified by Cannel and Bituminous coal. It is 150 feet deep, with steam exhaust for ventilation. I was obliged to order the disuse of the oil here owing to the filthy smell and clouds of smoke given off.

## WOODLAND

Is a shaft mine 250 feet deep, located in East Greenville. This mine is the property of R. H. Wainwright. Joseph Collier is superintendent and Ebenezer Lewis, mine boss. The products from here are, shipped over the C., L. & W. R. R. Eighty miners are engaged with pick and machines removing the No. 1 seam that is five and one-half feet in thickness at this point. Steam exhaust and fan are the impelling forces in the airing of the mine. The use of machines introduced to mine this coal are exciting the mining fraternity, as it is granted should they prove successful, that sooner or later all mines in the district will be equipped with them. It is also understood that the trials made have not all been entirely satisfactory to the managements. New entries are being driven, the top is getting better and the mine is assuming a more satisfactory aspect. A new fan, air shaft and escapement way resulted from the thirteen visits made.

## WEST MASSILLON NO. 2.

Located near West Brookfield on the W. & L. E. R. R. This is a shaft mine 150 feet deep. The No. 1 seam has been worked four and one-half feet in thickness, however they have had some coal eight feet thick. Fan and steam are used to ventilate. G. W. Guider is superintendent and C. R. Kline, the mine boss. Seventy miners and forty day men are engaged robbing pillars. The West Massillon Coal Co. are owners and managers.

# WEST MASSILLON NO. 3.

Situated in North Lawrence on the Pittsburg, Ft. Wayne & Chicago R. R. It is the No. 1 seam worked from a shaft forty feet deep and is five feet in thickness. They have fan ventilation. They have not yet reached the coal in the rock entry. Forty miners and ten day men are employed. The West Massillon Coal Co. own and manage this property.

#### WILLOW SPRING.

Situated in the village of North Industry on the Valley Ry. John Looby is superintendent and Alex Lindsay the mine boss. This is a drift opening made into the No. 6 seam of coal which is here four feet in thickness. Ridgeway, Burton & Co. are owners. The double entry system and furnace are the methods by which a fair current of air is supplied to the fifty miners and nineteen day men carried on the pay rolls. I was obliged to command that firing at noon be discontinued.

#### NORTH MASSILLON

Is a shaft opening near the village of Millport, made into the Massillon seam, which is here four and one-half feet thick. This mine has fan ventilation. Entries are driven double and are 150 feet in depth. The Ridgeway, Burton & Co. are owners David Johns is superintendent and John Hodgson is mine boss. A new air-shaft, fan and escapement way were provided during the year.

## HERN BROOK

Is a shaft mine 150 feet deep penetrating the No. 1 or Massilon seam. They drive double entries, have fan ventilation and are working for a pocket of coal situated at sme distance, and separated by a strata of rock. The force here has been greatly reduced. Ridgeway, Burton & Co. are the owners and managers. David Johns is superintendent and Wm. Crookston the mine boss.

## BLOCK VEIN

Is a drift opening made into the No. 4 or limestone vein. It is owned by the Block Vein Coal Co. D. I., St. Johns is superintendent and Wm. Meyers is mine boss. Twenty-five miners and five day men are employed. Furnace power is used for ventilation. The double entry system is practiced. This coal seam is five and one-half feet in thickness including a stone band in the center.

# WESTERN OHIO NO. 1

Is a shaft ninety feet deep penetrating the No. 1 seam. It is situated on the W. & L. E. R. and is owned and operated by the Western Ohio Coal Co. J. L. Green is outside, and M. Davis inside foreman. Exhaust steam and fan are the methods of supplying air for the seventy miners and twelve day men. A fan, airshaft and escapement way are the improvements made for the year. Five visits were made.

## CLOVER HILL

Is a shaft mine 170 feet deep. The Fox Lake Coal Co. own it, with John Featherstone as superintendent and mine boss. This is the No. 1 seam. Steam exhaust and fan are the means of ventilation. Forty miners and fifteen day men are engaged. The entries driven through the sand bar have not been the success anticipated by the company. The double entry system is adhered to.

## DAVIS NO. 1.

Situated in the city of Alliance. This is a shaft mine opened into an unclassified seam of coal, two feet ten inches in thickness. Single entries are driven. Furnace power is used to ventilate this mine. It is sixty feet to the coal that is consumed in the neighborhood for domestic use.

## CARR.

Also located in Alliance. This, too, is a shaft mine sixty feet deep. They have natural ventilation and employ ten miners and two day men. A. M. Carr owns and manages the property.

#### ROBINSONS.

Situated near Carrs, being in the same seam and worked on the same principle. These mines are difficult to keep in compliance with the mining laws, owing to the thinness of the coal, the great quantities of water in the bottom causing the same to heave up cutting off completely at times the air current.

#### WARWICK.

Located near East Greenville and West Brookfield. This mine is 200 feet deep. The Warwick Coal Co. are owners. E. E. Fox is superintendent and George Swiers the mine boss. One hundred and seventy miners and thirty day hands are employed. This is in the No. 1 seam, worked on the double entry system and the ventilation is caused by steam and fan. Five visits were made during the year.

#### UPPER PIGEON RUN

Is located near West Brookfield. It is a shaft 250 feet deep. They have steam exhaust and fan ventilation. The Upper Pigeon Run Coal Co. are owners. E. E. Fox is superintendent and Fred Kellar the mine boss. Sixty-five miners and twenty-one day men are employed. The recent developments of this property give no flattering encouragement for the future. The products of this mine are shipped over the C., C. & S. R. R.

# SUMMIT HILL.

Situated in the village of Greentown. It is a drift opening, from which is taken the No. 4 or limestone coal. It is six feet in thickness including the strata of stone in the center. Lew Smith is owner and outside foreman. Peter Dearhoof is mine boss. Forty-five miners and four day men are employed. The air current is impelled by furnace power along double entries.

# MASSILLON STANDARD.

Located in the village of Navarre, shipping its products on the Ohio Canal. It is a shaft opening thirty feet deep. The No. 1 seam, three feet in thickness, is mined. Thirty miners and five day men are employed. They use steam exhaust and have double entries. Fred Hess is superintendent and Thos. Kennedy is mine boss. Three visits were made. The opening is made adjacent to the old Beaver Run mine that has been abandoned and filled with water. I have ordered all work suspended on that side near to the old mine until some definite information in reference to the old workings can be obtained.

## PARIS MINE.

Drift opening, made into the No. 6 seam. W. A. Taylor is owner and Wm. Johnson outside and inside foreman. They have furnace ventilation and double entries. Twenty-five miners and three day men find employment. The old workings have been giving off considerable Carbonic acid or Block Damp. This caused considerable inconvenience to the miners. We have succeeded in removing it by an increased current of air and by bratticing it back.

## PLEASANT VALLEY.

Situated near the town of Paris and is a slope opening made into the No. 5 seam. It is owned by the Pleasant Valley Coal Co They have fan ventilation for the thirty miners and five day men employed. Wm. Frey has entire supervision. A new air shaft opened at the interior of the workings gives a pure atmosphere for the men. Two visits were made.

## CRYSTAL SPRINGS.

Situated near the village of Millport. The North Lawrence Coal Co. are owners. John Jordan is superintendent and mine boss. This is a shaft opening seventy feet deep. The No. 1 seam, four feet in thickness is mined. This has proven to be a splendid coal for domestic use, notwithstanding that there was presumed to be but a small pocket of coal here. It now gives promise of being extensive beyond the hope of its owners. Twenty miners and four day men are supplied air by double entries and steam exhaust.

## RICE & BOLLINGER.

Situated in the village of Osnaburgh and is a drift opening made into the No. 6 seam, which is three feet in thickness. Rice and Bollinger are the owners and jointly manage the same. They contemplate working it by double entry system and will have furnace power for ventilation.

# LOUISVILLE BRICK AND TILE CO. (CLAY AND COAL.)

Is situated near the village of Louisville. It is a drift opening made into the No. 5 seam of clay and coal. The Louisville Brick & Tile Co, own it. David Weirich has entire supervision. The general condition of the mine was more satisfactory than when last visited. Twelve miners and four day men are employed.

# INSPECTOR OF MINES.

# MINES, CLAY AND COAL, EMPLOYING LESS THAN TEN MEN.

Name of mine.	Operator.	Location.
Keeble & Mathias		Louisville
E. Rice		Osnaburgh
Bollinger		" " a " a " a " a " a " a " a " a " a "
Canton & Osnaburgh Brick &		
Tile Co. No. 6, clay		"
Canton & Osnaburgh Brick &		
Tile Co. No, 5, clay		"
Canton & Osnahurgh Brick &		
Tile Co. No. 5, coal		"
Bowens	Franklin Bollinger	"
Sausser	John Sausser	"
Brown	Grant Brown	"
Slusser	D. L. Slusser	"
Harter No. 1	Chas Harter	"
Harter No. 2	66	"
Yohe No. 1	Thouvenin Bros	Waco
Yohe No. 2	James English	46
Kramer	Anthony Kramer	"
Løhmiller & Kitzmiller	"	"
Hines	Frank Hines	66
Sponseller No. 5, new	L. Choffin	«
Slimmer	J. Slimmer	46
Thouvenin	H. Thouvenin	u
Reibenstine	Wm. Reibenstine	Osnaburgh
Marks	John Marks	"
Albers	Wm. Albers	"
Simmons	Harry Simmons	Canal Fulton
Brookfield No. 4	Brookfield Coal Co	West Brookfield
Massillon Fire Brick Co	Massillon F. B. Co	Massillon
Sippo (clay mine)	Sippo Clay Co	"—
Pefferby & McFadden	Pefferby & McFadden	Canal Fulton
Henry	Chas. Elseser	North Industry
Eberhard No. 1	Wm. Gonors	"
Eberhard No. 2	Daniel Ritchards	"
Block Vein (clay)	Block Vein Coal Co	Canton
Monongahela & L. Erie (clay)	W. & L. E. Coal Co	Cleveland
Smiths'	Albert Smith	Osnaburgh
Starr	J. S. Davis	Canton
Zion Hill	August Smith	New Berlin
Gem	Louis Garranx	"
Eureka	David Warburton	"
Canton Stoneware Co	Canton Stoneware Co	Canton

# MINES IN TUSCARAWAS COUNTY.

# MASSILLON PRACOCK

Located in Mineral Point on the Valley Ry. E. Van Kirk is owner and John Puncheon is inside and outside foreman. Thirty-five miners and fifteen day men are employed in this drift opening made into the No. 5 seam of coal. This coal is very irregular and uneven, making it difficult to manage and hard to ventilate with the furnace in use.

# GOLD DUST

Was also a drift opening located on the Valley R. R. It was owned and managed as is the above place. It has been worked out and abandoned.

## ROCK CUT

Is situated in Mineral Point on the Valley R. R. It is the property of G. J. Markley and is a slope mine penetrating the No. 6 seam of coal, which is here four feet in thickness. Twenty-five miners are employed. They have furnace ventilation and work the mine on the double entry system.

## MINERAL RIDGE

Was owned as is Rock Cut. It is worked out and abandoned.

## GOSHEN NO. 1

Situated in the village of Beidler, on the Cleveland, Lorain & Wheeling R. R. This is a drift mine made into the Middle Kittanning or No. 6 seam of coal. They have furnace ventilation. They have also double entries. Seventy-five miners and thirteen day men are employed. Joseph Brokenshire is superintendent and John Dougal the mine boss. The workings here are fast approaching their limits. This renders it difficult to ventilate properly. Such improvements as were requisite being made, placed the mine in fairly good condition.

## GOSHEN NO. 2

Is located, owned and managed as is No. 1. Seventy-five miners and twenty-three day men find employment. This is a slope mine penetrating the Middle Kittanning seam. The air current is impelled by means of a furnace and double entries. Check doors are used to conduct the air current to the faces. Three visits were made during the year.

# ACME NO. 6

Located in Mineral Point on a branch of the Valley R. R. Thos. Smith is lessee and also superintendent and mine boss. Thirty miners and eight day men find employment. It is a drift mine into the No. 6 seam, having furnace ventilation and double entries.

## HUFF'S RUN

Situated in the village of Mineral Point on the Valley R. R. Ridgeway, Burton & Co. are the owners. J. J. Klein is superintendent and Louis Klein the mine boss. Seventy-five miners and thirty-four day men are employed. The mine is a drift opening made into the Lower Kittanning or No. 5 seam of coal, which is from three to four feet in thickness. Furnace power is the means of ventilation. The entries are driven on the double entry system. The undesirable condition that existed here has been greatly improved. The sinking of an air shaft and the erection of a furnace have enabled the company to split or devide the air current. The mine was visited six times during the year.

# AMERICAN FIRE BRICK CO. (CLAY AND COAL.)

Situated near Mineral Point on the Valley R. R. It is a drift opening made into the No. 5 seam of clay and coal. The American Fire Brick Co. are owners. J. J. Rankins is superintendent and George Schadicker the mine boss. Ten miners and two day men are supplied air by a furnace.

# SOUTH SIDE. (COAL.)

Located in Mineral Point on the Valley R. R. C. E. Holden is owner and Thos. Osborne has entire supervision of the plant. Twenty-eight miners and eight day

men are employed. They have furnace ventilation and sometimes drive single entries. The department has had considerable trouble here owing to the persistent disposition of the company to disregard the law.

## TUNNEL MINE NO. 5

Is located near Mineral Point on the Tuscarawas branch of the Cleveland & Pittsburgh R. R. It is the property of the Tunnel Mining Co. John Brick has entire supervision. This No. 5 seam, four feet in thickness, is penetrated by a slope. The conditions here are not entirely satisfactory. The entries are driven singly, hence the difficulty in keeping the mine properly ventilated. Twenty-five miners and five day men are engaged. They have furnace ventilation.

## HOUKS.

Situated in the village of Stillwater on the C., L. & W. R. R. The Dover Coal Co. are owners. Wm. Houk is superintendent and Daniel O'Connor the mine boss. This is a drift mine made into the Upper Freeport or No. 7 seam, which is five feet in thickness. They have furnace ventilation and work the mine on the double entry system. Fifty-five miners and fifteen day men are employed.

#### MAPLE GROVE.

Located in the city of Uhrichsville. It is in the No. 6 seam. Schindler Bros. are the owners and managers. They have furnace ventilation and are driving double entries. Nine miners and two day men are employed, supplying coal for the domestic trade of the neighborhood.

# MIDVALE GOSHEN NO. 1

Is situated in the village of Barnhill on the C., L. & W. R. R. This mine is the property of the Midvale Goshen Coal Co. Frank McIntosh is superintendent and John Stephenson the mine boss. This place has furnace ventilation and double entries. Work was suspended during a great part of the year. This mine is opened into the No. 6 seam.

# MIDVALE GOSHEN NO. 2,

Located in the village of Barnhill on the C. L. & W. R. R. This, too, is a drift opening made into the No. 6 seam of coal. It has furnace ventilation and is worked on the double entry plan. One-hundred and eighteen miners and twenty-two day men are emploped. The Midvale Goshen Coal Co. are the owners. Frank McIntosh is superintendent and Samuel Miles the mine boss. A new airway enables the miners to have a better and purer current of air.

# MIDVALE GOSHEN NO. 3,

Situated near the village of Barnhill. It is also the property of the Midvale Goshen Coal Co. Frank McIntosh is superintendent and Wm. L. Davis the mine boss. This is a drift opening penetrating the No. 6 seam of coal. They have been suspended here for some time owing to a scarcity of trade.

# MIDVALE GOSHEN NO. 4,

Is situated in the town of Wainwright on the C., L. & W. R. R. This is the property of the Midvale Goshen Coal Co. Frank McIntosh is superintendent and W. A.

Davis the mine boss. This is a slope mine equipped with a fine system of rope haulage transferring the coal from the mines to the tipple. They have furnace power for airing. Double entries are the mode of working. One-hundred and sixty miners and twenty-eight day men are employed. This is the No. 6 seam which is four feet and eight inches in thickness. Six visits were made.

# MIDVALE GOSHEN NO. 5,

Located near No. 4. It is under the same management. It is also a slope mine made into the No. 6 seam, which is here four feet and eight inches in thickness. This mine has been suspended for some time.

## BROCK HILL.

Located near No. 3. It was the property of the Midvale Goshen Coal Co. and was under the same management as the other mines. It was worked out and abandoned during 1896.

## BRIAR HILL

Located near Canal Dover on the Ohio Canal. It is a drift opening made into the No. 5, seam, which is here three feet in thickness. This mine is the property of Werner & Stine. Eleven miners and two day men find employment here. Two visits were made.

## CLOVER HILL

Is located on the Ohio Canal near Canal Dover. It is a drift opening made into the No. 6 seam, double entries and a furnace supplies air for twenty miners and three day men. Hardwright Bros. are owners and managers. A new airway has removed the cause for complaint in the ventilation.

## SHILLINGS

Is a drift opening made into the No. 6 seam, which is four feet in thickness here. The products of this mine are utilized in the domestic trade along the Ohio canal, on the margin of which it is situated. Eight miners and three day men are employed. They have natural ventilation with double entries.

## EAGLE HILL

Is situated near Zoar Station on the Tuscarawas branch of the Cleveland & Pittsburg R. R. Wm. R. Jones is owner and superintendent, and Ebenezer Jones the mine boss. This is a drift mine made into the No. 6 seam four feet in thickness. They have single entries and a furnace. Twenty miners and seven day men are employed.

# TWIN CITY,

Situated in the city of Dennison on the P., C., C. & St. L. R. R. They have a drift opening into the No. 6 seam which is 4 feet 2 inches in thickness. This company has made an assignment but are in a fair way to re-establish themselves. They have furnace ventilation and double entries. Henry Tomlinson has complete management. Thirty-five miners and ten day men are employed. There has been some difficulty in properly airing this mine owing to derangement of the bottom, brought on by leaving the pillars too delicate to support the roof. They have erected check doors to divert the air current from the entries.

## PAULS,

Situated in the village of Newport on the C., L. & W. R. R. This property is owned by the Erchard Coal Co. John Fisher has entire supervision of the fifteen miners

and two day men employed in the drift opening. It is made into the No. 6 seam that is 4 feet in thickness at this point. The mine is opened on the double entry system and has furnace ventilation.

#### MONARCH MINE.

This is a drift opening made into the No. 6 seam, which is 4 feet in thickness. They are cleaning up this old mine with a view to re-opening and shipping coal. It has fan ventilation and was worked on the double entry plan. W. A. Davis is outside and Wm. Tanzie is inside foreman. Twelve miners are employed.

# ODBERTS NO. 1 AND 2,

Situated on the C. & M. R. R. at Stone Creek. They remain suspended.

## SOMERDALE NOS. 1, 2 and 3,

Located at Somerdale on the Wheeling and L. E. R. R., and they have as yet not resumed operations.

# CROWN FIRE BRICK CO.

Situated in the village of Strawsburg on the Cleveland, Lorain and Wheeling R. R. This is the drift opening into the No. 5 seam. Ten miners are engaged in mining clay and coal consumed at the large sewer pipe works.

#### TRENTON.

Situated in the village of Trenton on the Ohio Canal. It is owned and operated by Henry Minich. This is a drift opening made into the No. 6 seam of coal. They have furnace ventilation and double entries. Fifteen day men and miners are employed.

# MOREY RIDGE,

Owned by C. P. Nungesser and is situated on the Ohio canal near the village of Beidler. Twenty miners and three day men are employed. They have double entries and furnace. G. Affolder, Sr., is mine boss.

# TUNNEL MINE NO. 6

Is a drift at Mineral Point situated near No 5, and is under the same management. It is a new mine into the No. 6 seam.

# EXECUTIVE DOCUMENTS.

# MINES EMPLOYING LESS THAN TEN MEN.

<b>t</b> t	Operator.	Location.
South Side	C. E. Holden	Mineral Point
American Fire Brick Co	American Fire Brick Co	44
Hinely	J. A. Horn	Canal Dover
Horn	J. A. Horn	. "
Newmans	Edward Minnie	
Knisly	Mason Bros	66
Beans	Benj. Beans	Barnhill
Hawkins	Benj. Hawkins	66
Oliver	Oliver Bros	44
Mineral Ridge	Nicholas Hert	Trenton
Mazuire	J. Mazuire	Uhrichsville
Oliver	George Newton	Dennison
Keels & Roby	Keels & Roby	"
Morgan & Hines	Morgan & Hines	"
Smith	J. M. Smith	a *
Scott		Uhrichsville
Felters	J. W. Felters	(i
essie		"
D'Donnell No. 1	Crooker & Todd	« ·
4 2	Suspended	"
Arnold	John Arnold	44
Wand	Cyrus Killpatrick	Tracy
Pauls (clay)		
Dawson	M. Godward	Uhrichsville
		Unrichsville
Wilcoxen	J. Wilcoxen	44
Shipton	W. A. Shipton	**
Syndicate		Mineral Point
Edne	O. Clay	' 1 '11
Royal Clay Mfg. Co. (clay)	Royal Clay Mfg. Co	Uhrichsville
" (clay & coal)	•••	
" (coal No. 6)	66 66	•
" (coal No. 5)	***************************************	"
Advance Fire Brick Co. (clay) (coal)	Advance Fire Brick Co	"
Diamond Fire Brick Co. (clay) (coal)	Diamond Fire Clay Co	66 66
Uhrichsville Fire Clay Co. (clay)		66
" (coal)		"
Buckeye Fire Brick Co., (clay) (coal)	Buckeye Fire Brick Co	66 <b>-</b>
Dunlavey's		44

# WAYNE COUNTY.

# DALTON

Is situated in the village of Dalton ou the W. & L. E. R. R. The Howells Mining Co. are the owners. Anthony Owens is the superintendent and Richard Evans the mine boss. This is a shaft mine 150 feet deep, penetrating the Massillon seam of coal which is 4 feet and 4 inches in thickness. They have a divided current of air impelled along double entries by steam exhaust. Eighty miners and twenty-two day men are employed. Five visits were made during the year.

# MESSENGER

Located near the village of Clinton on the Cleveland, Akron & Columbus R. R. This is also a shaft mine 150 feet deep, made into the No. 1 seam of coal, which is

here four and one-half feet in thickness. The Fox Lake Coal Co. are the owners. G. J. Huber has entire supervision. They work this plant on the double entry system and have fan ventilation. One hundred and twenty miners and thirty day hands are employed.

## NEW CHIPPEWA

Was a drift mine opened in the No. 3 seam. It had furnace ventilation. It has been worked out and abandoned.

#### MOBILE

Is also a drift opening made into the No. 1 seam. It has furnace ventilation and double entries. John Santrock is owner and manager.

# REPORT OF REES T. DAVIS,

INSPECTOR OF THE SEVENTH DISTRICT, FROM NOVEMBER 15, 1895, TO NOVEMBER 15, 1896.

HON. R. M. HASELTINE, Chief Inspector of Mines;

DEAR SIR: I herewith submit my annual report as Inspector of the Seventh Mining District of Ohio.

Owing to the dullness in the coal trade the mines in this district have run less than heretofore. The idleness of the miners has also been added to by the numerous strikes which have occurred during the year. The most serious of these was that inaugurated by the Cherry Valley No. 3 mine, which arose from the refusal of the operators to accede to the demand of the miners that the coal be weighed before it is screened. After remaining out for seventeen months the miners returned to work, having gained nothing by the struggle. Another serious strike was that which occurred at the Palmyra mine, the grievance in this case being a reduction in the scale and also a controversy in regard to the screens. After a seven months suspension the operators acceding to the miners demands, work was resumed. The miners of East Palestine also came out, the trouble being a reduction in the scale of sixteen cents per ton. Work was resumed after one month of idleness. Besides these there have been many other strikes of less importance.

Three fatal accidents have occurred during the year in this district. On January 15, 1896, Timothy Duke, who was employed at the Fairfield mine in Columbiana county, was caught between the rib and a loaded mine car, injuring him so severely that he died three days later. At the Lake View mine in Summit county, on September 15, Wm. Hall, a driver, was instantly killed by being caught between the roof and a loaded car. The third accident occurred at Cherry Valley No. 3 mine, in Columbiana county, on October 15, 1896, whereby Thomas Holland was instantly killed by a fall of slate while loading his car at the face of his room.

My relationship with both miners and operators has been pleasant throughout and with gratitude to them for their courteous treatment, and to you for valuable counsel given me from time to time, I remain,

Very truly yours,

REES T. DAVIS,

Inspector of the Seventh District.

EAST PALESTINE, OHIO, November 15, 1896.

# COLUMBIANA COUNTY

# PLEASANT VALLEY NO. 1

Is a drift mine located near Holly Station on the Pittsburgh, Liebon & Western R. R. It is owned by the Holly Coal Co. This mine was idle for eighteen months but



has resumed operations, with W. S. Lewis as superintendent and Patrick Murphy mine boss. On my first visit the mine was not working, hence no inspection was made. On my other visits I found it in good condition. Thirty miners and six day men are employed. This mine is worked on the single entry system, with fan ventilation.

## CAMPBELL

Is a new drift mine opened into vein No. 6. It is located in Middleton township on the Pittsburg, Lisbon & Western R. R. It is owned by the East Palestine Coal Co. A new air shaft has been sunk. At present only entries and airways have been driven. The railroad siding has been laid and as soon as the tipple is built they will put on a large force of miners. Six miners and one day hand are employed. W. S. Lewis has entire supervision.

# QUAKER VALLEY

Is a drift located at Rogers on the Pittsburg, Lisbon & Western R. R. It is owned by the Quaker Valley Mining Co. J. H. Streator is superintendent and Wm. Weikert the mine boss. This mine is worked on the single entry system and has fan ventilation. This mine is kept in excellent condition. Sixty-four miners and eight day hands find employment.

## SARATOGO NO. 2

Is a slope located two miles east of Lisboniandis owned by Card & Prosser. Thos. Prosser is superintendent and Richard Prosser was the mine boss, until succeeded by John Prosser, who now has charge of the inside workings. I visited the mines six times during the year. The first visit was on November 30th, to ascertain the cause of the burning of fire damp by R. Lewis and Alex Easton, two entry-men. It appears that these men were apparently anxious to make some extra money for Christmas, and to succeed, violated the law which is intended for their benefit. This they did by entering the mine in the morning before the fire boss had made his examinationand had reported. By so doing they ignited some gas which had collected at the face of the entry, which burned them slightly. I ordered the gate on the slope hereafter locked when the mine was not actually working and no person to enter the mine until after it had been examined. I also ordered the doors in the dip entry repaired at once. My next visit was on December 6th, when I ordered the air checked up to working faces and the timber sent into the men. On my next visit I found the ventilation greatly improved. On my next visit I found John Prosser had succeeded Richard Prosser as mine boss and during the remainder of the year the mine was in a fair condition. This mine is worked on the single entry system and is provided with fan ventilation. Forty miners and eight day men are employed.

# CENTRAL SLOPE

Is located at Lisbon and is owned by Card and Prosser. Thos. Prosser is superintendent and David Lewis is mine boss. I visited the mine ten times during the year. During my visit of November 20th I tested the scales and found them to be in bad condition and discriminating against the miners forty pounds on the ton. I ordered them repaired which was begun at once and continued until they were made to weigh correctly. On my visit of April 10th I had work on the north side of the mine stopped as it was approaching the old Booth mine which was filled with water. During the greater part of the year the ventilation has been satisfactory. My last visit on November 14th was to inquire into the burning of David Lewis, fire boss, and George Taylor, miner. It appears that ten or twelve miners were



mining coal for the retail trade while the rest of the miners were out on a strike against a reduction of sixteen cents. To expedite matters the fire boss had allowed the miners to enter the mine with him to a certain point where he proceeded to place the men after examining their places. All were placed except Mr. Taylor. Then the fire boss went into Mr. Taylor's room, which is the last room turned in No. 15 entry, and finding some gas extending from the face of the entry to the mouth of Taylor's room, he told Taylor to stay back until he could remove the gas. While the fire boss was in the act of placing some canvas to carry the air current to the working face of the entry, Mr. Taylor came forward with his naked light and fired the gas burning his face and hands and Mr. Lewis arm. This basin of coal is very narrow which causes them to drive a large main entry. Singlelentry system and fan ventilation is the mode of working. Sixty-five miners and eleven day hands find employment.

#### STANDARD SHAFT

Is located in Lisbon and is owned by R. Arter. The lease of George Hirst expired during the year and now Mr. Arter has full control, with Ed Hardy as superintendent and mine boss. On each visit I found the mine in good condition. Twenty miners and four day hands are employed.

## FOLTS SHAFT

Is located near Teegarden and is owned by Folts Bros. H. V. Folts is superintendent and M. P. Brady the mine boss. It was visited November 27th and January 31st and on each visit I found the mine in good condition. On my last visit I tested the scales and found them ten lbs. to the ton in favor of the miners. The mine has suspended operations owing to the dullness of the coal trade. Twenty-five miners and nine day hands were employed.

# FREEPORT SLOPE

Is located at Long's Crossing and is owned by the Freeport Coal Co. T. R. Lewis is superintendent and mine boss. The mine has remained idle the greater part of the year. The roof is tender and the coal is very soft and does not present a very encouraging appearance for the future. Twenty-eight miners and three day hands were employed.

## CHERRY VALLEY NO. 8

Is a slope located at Washingtonville and is owned by the Cherry Valley Iron Works. T. R. Lewis is superintendent and Daniel McGrath the mine boss. I visited the mine five times during the year and it was always found in a fair condition. My last visit was to investigate the cause of the death of Thos. A. Holland. The deceased came to his death by a fall of slate at the face of his room while loading his car. One hundred and fifty-five miners and seventeen day hands find employment.

## SALEM,

Located near Washingtonville on the Salem R. R. It is a drift opening owned by the Salem Coal Co. Wm. Dunn is superintendent and mine boss. The mine is worked on the single entry system and is provided with fan ventilation. Ninety miners and twelve day hands are employed here. On my first visit I ordered the air checked up to the working faces, also the timber sent into the men. On my next visits I found the air checked up to the working faces and the timber being sent into the mine as I requested. The mine has been kept in a fair condition throughout the year.



## FAIRFIELD NO. 1

Is a drift located at New Waterford and is owned by the Fairfield Coal Co. Col. Hugh Laughlin is superintendent and Thos. Sutherin is mine boss. I visited the mine seven times during the year. On my visit of December 12th I found that the third left entry was eighty feet ahead of the air, also the third right entry ninety feet and the second right 100 feet shead of the air. I stopped all of the entries until the air was brought up. I called their attention to this violation of the law and requested them not to do so again, to which they have complied. My next visit was for the purpose of investigating the cause of the death of Timothy Duke. The deceased was caught between the rib and a loaded car. Mr. Duke got in between the loaded cars to ride out. The driver put him off once but he got on again and rode out to the mouth of the entry where he stepped out between the cars and was caught with the last car on the trip against the rib, injuring him so that he died in a few days. The last visits I found them all drawing pillars. At the beginning of the year there were 120 miners employed but on my last visit I found only twenty miners. They were being transferred over the No. 2 mine as soon as their places could be gotten ready.

## FAIRFIELD NO 2

Is a drift opened into the No. 6 seam of coal and is owned and managed by the same parties as Fairfield No. 1. It is worked on the single entry system and is provided with furnace ventilation. They have experienced some trouble in the mine by reason of encountering a sand rock fault, which cut out the coal and causes it to run very irregularly. A new air shaft has been sunk and a new turnace has been built. The ventilation has been very good since the opening of the mine. On my last visit they had got quite a field of coal and ninety miners and eighteen day men found employment.

# CARBON HILL NO. 1

Is a drift located near East Palestine and is owned by the East Palestine Coal Co. W.S. Lewis is superintendent and Wm. Morris is mine boss. This mine is used only for the rope haulage which extends back to the No. 2 and No. 3 mines. This road was kept in a fair condition throughout the year.

# CARBON HILL NO. 2

Is a drift, and is owned and managed by the same parties as No. 1. This mine is worked on the single entry system and has furnace ventilation. It was visited six times during the year. On my visit of December 13th, I found the mine in fair condition, except the third right which was deficient in ventilation, also the door on the mouth of the second left was in bad repair. I ordered the improvements made at once. On my next visit of February 21st, I found the mine troubled with surface water from the recent rains. On other visits I found the fifth left and sixth right entries ahead of the air and the haulage roads in a bad condition. To this violation of the law I called their attention, and requested the management to put the mine in a lawful condition. I found the mine in a fair condition on my last visit and the haulage roads were improved. Thirty miners and thirteen men are employed.

## CARBON HILL NO. 3

Is a new drift opening into vein No. 6 and is owned and managed by the same parties as is No. 2. The coal is hauled over the same road as that of the No. 2 mine to the tipple. The mine was driven through into Howell's Retail mine which serves as a second opening, and for drainage also for ventilation. A new air shaft has been



sunk down in advance of the workings. On my last visit of October 12th, the entry was within a few cuts of holeing into the shaft. Thirty miners and three day men are employed.

## PROSPECT HILL

Is a slope located at East Palestine and is owned by the Prospect Hill Coal Co. W. S. Lewis is superintendent and W. B. Lewis is mine boss. The mine is worked on the single entry system with fan ventilation. I visited the mine seven times during the year. On my visit of December 24th the ventilation was fair but the haulage roads were in a bad condition, owing to water and mud being on them. I ordered them put in a better condition. My next visit February 17th, found the mine troubled with a great deal of water coming from the surface owing to the recent rains. On April 20th the ventilation was deficient. I ordered improvements that would bring the mine up to the standard required by law. On my last visit I found the mine in fair condition. Seventy miners and eighteen day hands find employment here.

# MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Owner or operator.	Number of miners.	Postoffice address.
State Line Slope	Slope	State Line Coal Co.	8	East Palestine
Wheat Hill		Wheat Hill Coal Co		"
Chamberlain		John Jones	2	44
Carbon Clay		Wm. Ward	2 3	••
Ranch		F. F. Felger	3	Unity
Mellonkoph		J. Mellonkoph	2	
Eureka	"	Joe Hisey	4	New Waterford
Hall Ridge	"	Ludwig Fringer	5	"
Moore	Shaft		6	Mosk
Bucks		Nevin Buck	4	East Fairfield
Walnut Hill		Frank Lewis	3	Washingtonville
Briar Hill		Frank Saffer	8	"8
Heppner		Heppfier Bros	4	Leetonia
Longanecker	Shaft		5	"
Sheen Shaft	44	Wm. Sheen		Salem

## MAHONING COUNTY.

## BELOIT SHAFT

Is located at Beloit and is owned by the Youngstown Paving Brick Co. J. K. Englefritz is superintendent and Leo Gedanetz, the mine boss. This mine is worked on the double entry system with fan ventilation. The mine has been kept in fair condition throughout the year. Ten miners and three day hands are employed.

# MCKINLEY SHAFT

Is located one mile east of Beloit and is owned by the Mahoning Coal Co. E. G. Marshall is superintendent and J. C. Evans, the mine boss. This mine is opened into vein No. 3, which is of a good quality here and has the appearance of being of uniform thickness. It is thought that the seam covers a large territory. On

my last visit of October 26th, the entries had just got fairly started off the bottom from the shaft and several rooms were being turned. Twenty miners and nine day men were employed.

#### STOFFER SHAFT

Is located at Washingtonville and is owned by the Washingtonville Mining Co. Frank Stoffer is superintendent and David Stoffer, is mine boss. This shaft was sunk some fifteen years ago by J. M. Walters and was abandoned and allowed to fill up with water shortly after being put in good running order. The present company has pumped out the water and has put the mine in good condition. They are putting down an air shaft which serves as a second opening for the men to travel in and out. The ventilation is furnished by a new Brazil fan. Twenty-three miners and two day hands are employed.

#### FAIR VIEW

Is a drift located at Washingtonville and is owned by the Fair View Coal & Mining Co. J. C. Weikert is superintendent and mine boss. The mine has been kept in a fair condition throughout the year. Twenty-five miners and three day men are employed.

#### NEW WITCH HAZEL.

This mine was abandoned during the fore part of the year.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners.	Postoffice address.
Miller	Deid	Roose & Sons	9	Alliance
Bandy		Allen Miller		"
Urmson		Ralph Urmson	6	Beloit
Barbers		Barber Bros	ğ	BEIOIL
Sears		David Coy		Salem
Auld	Driit	Robert Auld		Satem
Powe	"	Godward & Sons		"
Greenamyer		John Howells	ģ	"
				Calumbiana
		A. W. Harrold		Columbiana
Holobaugh		Cal Holobaugh		North Lima
McGill	Slope	Jacob McGill	Z	· "
Mentzer		Ferd Mentzer	2	<u>"</u>
Spait	*******	Wilcox & Peacock.	7	"u
S. Paulin		Solomon Paulin	8	
Buckeye No. 2		Robert Hunter	2	Youngstown
Buckeye No. 1		_ "	••••••	
Jones	*** *****	Jones & Sons	7	Poland
Cyrus Paulin	******	Cyrus Paulin	8	
Paulin	*******	Josiah Paulin	5 6	Woodworth
Little		Daniel Little	6	
Tyrell	"	Thos. Tyrell	6 2	Youngstown
Ruhlman	•••••	E. H. Ruhlman	2	New Middleton
	••••••	I. II. Kullilläll		11CW MIGGIELON

#### TRUMBULL COUNTY.

#### FORAKER NO. 2

Is a shaft located near Youngstown and is owned by Evan Morris, who is also superintendent, and Thos. E. Morris is the mine boss. On my first visit the mine was approaching the old Niles shaft. As they had secured the map of the old Niles mine, I requested them not to approach the old workings within one hundred feet as shown on the map. On my next visit the mine was abandoned and filled with water coming from the old works which they had tapped a few days before.

#### MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	Number of miners.	Postoffice address.
Keel Ridge	Drift	Keel Ridge Coal Co	9	Sharon, Pa. Youngstown.

#### PORTAGE COUNTY.

#### HUTSON NO. 1

Is a shaft located near Davis roads on the Alliance & Northern R. R. Thos. J. Williams is superintendent and Roger Lewis is mine boss. This mine was visited twice during the year and on each visit it was found in excellent condition. The mine has been idle for seven months by reason of a strike, the miners striking against a reduction of seven cents per ton and a grievance in regard to the screen. Seventy miners and twenty-seven day hands are employed.

#### HUTSON NO. 2

Is a shaft located near No. 1 and is owned and managed by the same parties. This mine has been kept in a fair condition throughout the year. It has been idle for the same period and from the same cause as the No. 1 mine. Seventy-five miners and eighteen day men are employed here.

#### HUTSON NO. 4

Is a shaft located near Deerfield. Captain H. D. Hutson is superintendent and Thos. J. Williams the mine boss. This mine was found in excellent condition. This company have put in electric mining machines, the General Electric Co. installing the plant and machines. A fan is used as a means of ventilating the mine. Twenty-two miners and eighteen day men are employed.

#### FILER NEW SHAFT

Is located at Keon's Crossing and is owned by the Filer Coal Co. John F. Filer is superintendent and John Sutcliffe is mine boss. On my first visit I found the mine

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in a fair condition excepting the south dip entry, which was deficient in ventilation. On my last visit of September 30th, I found the south dip entry in a bad condition by reason of increased quantities of water being found by striking a crevice in the rock. The water being pumped up to the sump at or near the bottom of the shaft would reduce the size of airway and block the air. After looking over the situation I ordered them to change the airway by making a breakthrough near the pump and to open the mouth of an old room, thus making a more direct route and a larger airway. Quite a long strike prevailed at this mine during the year for the same causes as Hutson Nos. 1 and 2 mines. Sixty miners and eighteen day men are employed.

#### SCOTT.

This mine was abandoned during the fore part of the year.

#### LIST OF SMALL MINES.

Name of mine.	Kind of opening.	Name of owner or operator.	No. of miners.	Postoffice address.
Whip-poor-will	Shaft	Beely & Jenkins	5	Palmyra
Muirhead		G. A. Wilson	5	Atwater Centér.

#### SUMMIT COUNTY.

### LAKE VIEW NO. 2

Is a shaft located eight miles south of Akron in Green township, and is owned by the Lake View Co. A. J. McCartney is superintendent and Wm. Phillips is mine boss. The ventilation has been fair during the year. Wm. A. Hall, a driver, was killed while driving out his loaded trip, being caught between the roof and the loaded car. Why, or how he got on top of the loaded car, knowing the entry was not high enough to permit him to ride out without being crushed, will remain a mystery. Sixty miners and eighteen day hands are employed.

#### WHITE SPAR.

Located on the Silver Creek branch of the Erie R. R., in Norton township, is a slope owned by Hall Bros. Ira Hall is superintendent and Thos. Williams the mine boss. This new opening is made into the Massillon vein. The mine was found in fair condition. A new air shaft has been sunk. I tested the scales and found them correct. Twenty-four miners and six day men are employed.

#### PLEASANT VIEW

Is a shaft located near Cuyahoga Falls. It is now owned by Robert Adams, who bought it from the Cuyahoga Falls Coal Co. Robert Adams is superintendent and Jacob Rees is mine boss. The ventilation was deficient on my last visit. I ordered it improved at oncc. Eleven miners and three day men are employed.



#### MINES EMPLOYING LESS THAN TEN MEN.

Name of mine.	Kind of opening.	Name of owner or operator.	No. of miners.	Postoffice address.
		Whitmore & Rob-		
Hill Clay	Drift	inson	2	Akron
Akron Clay	"	Co	1	Akron
Webb	66	Wm. Johnson	5	Briton
Swinehart		J. B Wood's heirs	2 6	Akron
Merrill	"		6	Akron
South End	"	Co	4	Tallmadge
Farmers' Slope	Slope			Krumroy
Wilson	Shaft	Wm. H. Wilson	<b>4</b> 3	14
		Hametown Retail	_	1
Hametown	Slope	Coal Co	6	Hametown

#### MEDINA COUNTY.

#### EXCELSIOR NO. 2

Is a slope located near Silver Creek, and is owned by the Excelsior Coal Co. Wm. Ledyard has the entire charge. After working all the available coal out they started to drive an entry into the old abandoned Wadsworth mine, which was filled with water, and in which some valuable coal was left which would give the mine a new lease of life. On September 15th the old works were tapped with a drill hole eleven feet and six inches in advance of the solid. The drill hole was then plugged until the pumps and two new boilers were put up to take care of the water. On my visit of November 12th, they had twelve drill holes through into the old mine letting out the water, which was being pumped to the surface. It was expected to take two or three weeks before the water would be low enough to enter the old mine. Much credit is due to Mr. Ledyard for the carefulness and the good judgment he exercised in this dangerous task, for it was accomplished successfully and without accident. On my last visit there were thirty miners and eight day hands employed.

#### AKRON NO. 3

Is a slope located near Wadsworth, and is owned by the Akron Coal Co. V. Gerstenschlagen is superintendent and James Gallagher the mine boss. This mine is worked on the double entry system. Exhaust steam is used for ventilating power. The air is split or divided at the bottom of the slope, giving both sides of the mine a better and purer ventilation. The mine has been kept in good condition throughout the year. Sixty miners and thirteen day hands are employed.

#### AKRON NO 2

Is a shaft located near Wadsworth, and is owned and managed by the same parties as is the No. 3 mine, with Joseph Jorden as mine boss. This mine is worked on the single entry system and exhaust steam is used for ventilation. On my visit of March 10th, I found the ventilation deficient. I ordered it improved at once. This mine has practically been idle during the summer. Fifty miners and eleven day hands are employed.

#### AKRON NO. 1

Is a slope located near Wadsworth, and is owned and managed by the same parties as the No. 8 mine, with Thos. Doyle as mine boss. This mine is worked on the single entry system and has fan ventilation. It was visited on March 11th. and found in fair condition. May 6th the ventilation was deficient by reason of the fan being out of repair. I ordered it repaired at once, which I learned was done next day. On my last visit the mine was in a fair condition. Thirty miners and six day men find employment.

#### HUDSON RUN

Is a slope located near Wadsworth, and is owned by the Brewster Coal Co. J. J. Degenhard is superintendent and John Hutchison the mine boss. This mine is worked on the double entry system, with furnace and exhaust steam as the ventilating powers. I visited the mine five times during the year. On February 5th it was not working but was in a fair condition. March 11th the ventilation was deficient. I ordered it improved at once. March 12th the ventilation was somewhat improved. On june 25th the mine was found in fair condition except in a few places. August 20th it was in a fair condition. Eighty miners and eighteen day hands are given employment.

#### ELDORADO

Is a shaft located near Wadsworth, and is owned by Card & Barrett. O. V. Dibble is the superintendent and Cyrus Evans the mine boss. The mine is worked on the double entry system and has fan ventilation. It was visited May 5th and found in fair condition. June 24th the ventilation was very poor at the working faces of four and five, also six and seven left butt entries, caused by a fall in the airway blocking it. I gave them ten days to improve the ventilation. July 10th the ventilation was good, the airway cleared up and a good current of air sweeping through to the working faces. Seventy miners and thirteen day men are employed.

### Mines Employing Less Than Ten Men.

Name of mine.	Kind of opening.	Name of owner or operator.	No. of miners.	Postoffice address.
HambletonSharon Slope	Slope		6 6 8	Woodsworth " Western Star

# LIST OF

# Coal, Fire Clay and Iron Ore Mines,

ALSO A LIST OF

THE LIMESTONE QUARRIES IN THE STATE,

Giving the Names of Each, the Name and Postoffice Address of the Owners or Operators.

## COAL MINES.

## LIST OF MINES EMPLOYING MORE THAN TEN MEN.

#### ATHENS COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Carbondale	Drift	Carbondale Coal Co	Chillicothe
Phoenix No. 1	Shaft	Phoenix Coal Co	Toledo
Phoenix No. 2	"	((	"
Jacksonville No. 4	"	W. P. Rend & Co	Chicago, Ill.
Briar Ridge	"	46	ũ '
No. 10	"		Columbus
No. 16	"	Courtright, Kistler & Co	" .
Springfield No. 2	Drift	Maple Hill Coal Co	Nelsonville
Bell Run or No. 55	٠ عر	- "	."
Briar Hill	"	Weekly & Patton	
Coe Hill No. 2	"		
No. 3	"		
Poston No. 1	"	C. L. Poston & Co	
No. 29	"	Wilson & Siddle	
Orbiston	"	Raybould Bros	
West Ploodwood	"	Glenmore Coal Co	"
No. 24	Shaft	Northern Fuel Co	Jacksonville
Broadwell	Drift		Broadwell
Federal Valley No. 1	"	G. W. Haybron	
Federal Valley No. 2	"	Marietta Run Coal & Coke Co.	New York City
Sedalia	"	Sedalia Coal Co	Glouster
Jumbo	Shaft	North Star Coal Co	Columbus
Minker Run	Drift		"
Black Diamond	"		_ "
McKinney			Zanesville
Daleton	Shaft		Rawndale
Halbert	Drift	Shaffer & Mason	Glen Ebon
Bessie	Shaft		Nelsonville
Bailey Run	_ "	C. H. C. & I. Co	Columbus
No. 21	Drift	Scott & Ball	Nelsonville
Brook's Hill	"	J. F. Beckler	Carbondale

# MINES EMPLOYING LESS THAN TEN MEN. ATHENS COUNTY—Concluded.

Name of owner or operator.	Postoffice address.
Ohio Coke & Clay Mnfg. Co Bartell & Spencer Johnson Bros. Coal Co. Lewis Wetzel.	Chicago, Ill. Nelsonville " Buchtel
E. O. Cole C. P. Evans Erwin, Olds & Hall Ed. Holland	Nelsonville "
East Clayton Clay Mfg. Co	" " Glouster
John Koon Wm. Lancaster Richard Brown	Nelsonville Jacksonville
C. B. Graham	

# MINES EMPLOYING MORE THAN TEN MEN. BELMONT COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Wheeling Creek No. 1	Drift	Pittsburg & W. Coal Co	Bridgeport
Wheeling Creek No. 2	"	." "	~~
Crescent Creek No. 1	"	" "	"
Ætna Standard	"	Ætna Standard Iron, Steel Co	"
McConaughy	"	James McConaughy	"
Nail Mill	"	Bellaire Nail Works	Bellaire
Bernard	"	Kinsey Bros	64
Schicks		James Turnbull & Co	"
Belmont No. 1	"	Jacob Heatherington	"
Belmont No. 2	"	D-1	"
Pittsburgh		A M1 B!	"
Morgan	"	Mantines & Oa	er e
Maple Hill	"	M1- 17:11 O1 O-	Barton
Boggs	44	77 17 D	"
raggarts ,	"	Jos. Schindler	16
Flushing	"	Flushing Coal Co	Flushing
Rock Hill	"		1 moning
Black Diamond		C. Troll	St. Clairsville
	"		Martins Ferry
Laughlin	Ch-A"		
Captina Kidds No. 2	Shaft Drift	Captina Coal Co	Armstr'gs' Mil Kidd
	Dritt		
Franklin	****	Owen Meehan	Stewartsville
Quaker City	Slope		Quaker City
Walnut Hill	Drift	O. & P. Coal Co	Cleveland
Walnut Hill No. 2	"		
Gaylord	****	McGinley Bros	Wheel'g, W. V
Glen	Slope		Glenco
O. & W. Va	Drift		St. Clairsville
Wegee		Wegee Coal Co	Ambler
Echo	Drift	Samuel McGregor	Neffs

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# MINES EMPLOYING LESS THAN TEN MEN. BELMONT COUNTY—Concluded.

Name of owner or operator.	Postoffice address.
Heller Bros	West Wheeling
Thos. Costine	Bridgeport
John Dickason	"
Louis Pelkley	Bellaire
Jesse Tracy	Morristown
L. V. DeLoche	. Bridgeport
David Boston	.  "
Koehnline & Son	. "
Meister & Son	. 46
Meister Bros	. "
John Musgrave	Bellaire
John Crozier	
Charlie Sedwick	Martins Ferry
George Robinson	Bellaire
Israel Pelkey	. "
Chas. Rosser	. "
Patrick Scahill	
Frank Coss	Barton
S. Fielding	
J. E. Schnegg	
Isaiah Owens	
W. P. Williams	
A. E. Malden	Barnesville
Michael Burns	
Casper McCabe	
D. K. Allen	Martins Ferry
Chas. Helt.	Don
Paxson Bros	1
Hellings Bros	
Robert Applegarth	
Robert Clark	
George Neff	
David R. Humphreys	
Abel Walker	
A. Conrow	
Carlton Howell	
Nixen & Dennis	
George Jeffreys	
Davis & Archer.	
Kohn E, Klee	
George Ayers	
Davey Bros'	
Stine & Moore	Flushing
Edward Tschappatt	Powhatan
Henry Deihl	Don

## MINES EMPLOYING MORE THAN TEN MEN.

#### CARROLL COUNTY.

Name of firm.	Kind.	Name of owner or operator.	Postoffice address.
Linden	Drift	Linden Coal Co	Canton
Sherrodsville No. 3	"	Fuller Coal Co	Sherrodville.
Scotts No. 1	"	Mardy Coal & Mining Co	Tabor
Allen	Shaft	C. M. Beardsley	Cleveland
Elder	Drift	J. D. Owens Mining Co	Canton
Linden No. 2	"	Davis Railway Co	44
Linden No. 4	"	"	"
Huff's Run	"	"	"
Linden No. 5	"	14	4
Malvern	"	Malvern Fire Clay Co	Malvern
Sherrodsville No. 5 new	"	J. H. Somers	Cleveland

## MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice address.
Beatty Fire Clay Co	. Magnolia Malvern
John EbersoleFrank Moody	Carrollton
Howard Preston	. Leesville . Harlem Springs
Amor Preston	. Malvern
Canton & Malvern Fire Clay Co	Leesville

## MINES EMPLOYING MORE THAN TEN MEN.

## COLUMBIANA COUNTY.

New Shaft	Name of firm.	Kind.	Name of owner or operator.	Postoffice address.
Slope				
Hays				
Foster's	Havs	Drift	Jas. Strabley	Salineville
Prospect Hill	New Shaft	Shaft	Big Vein Coal Co	
Pleasant Valley				
Wheat Hill				
Cherry Valley No. 2		44		
First National Drift John Post Salem Second National "Geo. D. Allison "Rogers Cement Ohio Cement Co. Lisbon	Cherry Valley No. 2	44		
Second National	Cherry Valley No. 3			"
Cement				
Cement " Ohio Cement Co Lisbon		*****		
	Central	Slope		110011

## MINES EMPLOYING MORE THAN TEN MEN.

## COLUMBIANA COUNTY—Concluded.

Name of firm.	Kind.	Name of owner or operator.	Postoffice address.
Carbon Hill No. 2 Carbon Hill No. 3	Drift	East Palestine Coal Co	E. Palestine
Saratoga No. 2 Folts	Slope	Card & Prosser	Lisbon
Standard		0. 1 10 10	"
Salem Pine Hollow	Drift Slope	Salem Coal Co	Salem "
Campbells Fairfield	Drift	East Palestine Coal Co Fairfield Mining Co	E. Palestine New Waterfor
Freeport		H. C. Stouffer	Teegarden

Name of owner or operator.	Postoffice ad- dress.
John Jones	. Bast Palestine.
J. T. Howell	
J. C. Shepherd	. Salem
F. F. Felger	. Unity
Wm. McDonald	Leetonia
Ed. Lanahan	.  "
Kegelmyer & Bros	. "
Iohn Zimmerman	.1 "
Mrs. Elizabeth Neiheisel	4 "
Ludwig Frenger	
F. P. Wherry	
D. E. Stouffer	
Owen R. Everhart	N. Georgetown
U. S. Fire Clay Co	Pittsburg, Pa.
Nevin Buck	
Jos. Hiséy	. New Waterford
O. S. Hill	Lisbon
Jonathan Mollenkoph	Unity
Geo. B. Baker	. Washingtonville
T. R. Lewis	. Leetonia
Wm. Sheen	. Salem
Union Fire Clay and Stone Co	Lisbon
Standard Pottery Co	. Salineville
John D. Smith	. Washingtonville
Frank Lewis	
Enoch Jones,	
Kirk & Vasey	
Nelson Burson	
Jas. W. Murphy	
Jos. Whitticar	
Frank M. Simpkins	Elkton
John H. Smith	
George Aten	
Philip March	
Faulk Bros	
M. Dailey	Mosk
Wm. Ward	East Palestine

# MINES EMPLOYING MORE THAN TEN MEN. COSHOCTON COUNTY.

Kind.	Name of owner or operator.	Postoffice address.
"		Cleveland Franklin Sta.
46	44	Conesviile
"	"	46 66 48
"	John Conley	"
"	W. J. Clough	Coshocton
"	Hudson Coal Co	46
	Drift	Drift Morgan Run Coal Co

### MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice ad- dress.
Orangeville Coal Co	Coshocton
J. H. Robson	"
Samuel Kirker	Tyrone
S. N. Norris	Frazeysburgh West Lafayette
Benj. C. Williams Luke Hall	Coshocton
Edwin West	Roscoe

## MINES EMPLOYING MORE THAN TEN MEN.

## GALLIA COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice ad- dress.
Carl No. 1	Drift	Mack & Bing	Carlton "

#### MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice address.
D. D. Morgan Thos. E. Evans	. Thurman
G. W. Hedges	. "

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## MINES EMPLOYING MORE THAN TEN MEN.

### GUERNSEY COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Mathews No. 2	Drift	Hamilton Mining Co	Cambridge
Champion			Cambinage
Nicholson		Ohio Coal Co	"
Scotts	"	Cambridge & Guernsey Con. Fuel Co	"
Guernsey	"	Cambridge & Guernsey Con. Fuel Co	44
Hartford Trail Run	Shaft	Ellsworth & Morris	Cleveland
Pioneet	Slope	Pioneer Coal Co	Byesville
Forsythe	"	Forsythe Coal Co	Craig
Cisco	Shaft		
Walhounding	64	94	"
Robins	"	Robins Coal Co	66
Briar Ridge No. 3	Drift	Hamilton Mining Co	u

Name of owner or operator.	Postoffice address.	
M. A. Griest	Quaker City	
E. W. HallSamuel W. Sayers		
R. Bate	"	
S. Moore	"	
T. C. Hall	44	
[. C. Smith	. "	
Eugene A. Scott	Craig	
lames Lukes	Ouaker City	
Moses Sarchett	Cambridge	
David Nicholson	"	
Hugh Keenam	Quaker City	
E, H. Webster	Salesville	
R. L. Spencer		
J. C. Wilson	Cambridge	
J. A. Stephens		
j. C. Hail	Quaker City	

## MINES EMPLOYING MORE THAN TEN MEN.

### HARRISON COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Messenger	Drift	Messenger Coal Co	Bowerston

Name of owner or operator.	Postoffice address.
E. C. Rodgers	Cadiz
J. I., Keesey	Caulz
R. R. Cochran	44
Martin S. Jamison	"
D, F. Hess	Freeport
Scott Barnhart	Cadiz
J. C. Jamison.	(i
Robert Long	"
Alvin Craig	"
Samuel Clemons	"
Geo. Aukerman.	"
Kain & Kerr	"
I. H. Fart	"
	"
	Tonnan
W. T. Blackwell	Tappan
S. J. Jobe	Wanadala
William Birney	Hopedale
S. S. Grimes	Cadiz
Thos. Snider	Folks' Station
William Holmes	Hopedale
William Skelley	_ " .
Jas. McKean	Bowerstown
Mark Williams	New Athens
Thos. Young	Hopedale
John McGill & Son.	Tappan
F. W. Weyandt	Bowerstown
A. A. Cannon	New Athens
Robert Dinsmore	"
R. M. Love	""
John Webb	1
Geo. W. Czatt	Tappan
Robert Penman	"
John McGrew	New Athens
Jaq. D. Mitchell	Warfel
W. R. Crim, Sr	New Athens
C. B. Best	Germano
Morris Hoobler	
Jos. Carter	Uniondale
Jas. Culbertson	New Athens
J. C. Ramsey	Hattonia
S. T. Tipton	"
J. W. Ford	"
j. P. Leggett	Hopedale
Wilson Nash	Freeport
	•

### MINES EMPLOYING LESS THAN TEN MEN.

### HARRISON COUNTY-Concluded.

Name of owner or operator.	Postoffice ad- dress.
John C. March Lowmiller & Writhworth John Busby H. Barrett McMillan Bros. Jesse Cecil Geo. McManus Elmer Hines O. C. Hines David Allison	Jewett Hattonia Deersville Stillwater

## MINES EMPLOYING LESS THAN TEN MEN.

### HOLMES COUNTY.

Name of owner or operator.	Postoffice ad dress.	
ohn Chevellard	Millersburgh	
3. D. Bowen		
Wm. Jordan	"	
ohn Horn	1 "	
3. B. Skelley	"	
I. G. Mast	"	
<b>fast</b> Bros		
as. Warner		
æwis Geib	"	
3. H. Snider	"	
Patrick McGaven	Benton	
V. H. Gindlesburgher	Millersburgh	
V. H. Miller	Saltillo	
A. Peters	Millersburgh	
S. C. Quillin		
acCullough & Laughlin		
	11011110011110	

## MINES EMPLOYING MORE THAN TEN MEN.

#### HOCKING COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
No. 19, South	66 66 66	C. & H. C. & I. Co	Columbus  " " Cleveland "

# Mines Employing More Than Ten Men. Hocking county—Concluded.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address,
No. 29	Drift	Greendale Furnace Co	Haydenville Cincinnati Columbus Nelsonville " Sand Run Monday

#### MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice ad- dress.
J. M. Lama	. Nelsonville
Cohagen & Achauer	
D. K. Nutter	
Kistler & Carpenter Coal Co	.  "
Washington Coakley	. Nelsonville . Carbon Hill
D. L. Cox	

# Mines Employing More Than Ten Men. JACKSON COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Superior No. 1	Shaft	Superior Coal Co	Wellston
Superior No. 2	"	"	"
Superior No. 3		"	"
Superior No. 4		14	44
Superior No. 5	Drift		"
Superior No. 6	Slope		"
Chapman			Iackson
Grace			Jackson
Springfield			"
Wellston No. 1	Sheft	Wellston Coal Co.	Wellston
Wellston No. 2		"Coar Coar Co	W CHSCOLL
Wellston No. 3	44	"	**
Fluhart No. 1		Fluhart Coal Co	
Fluhart No. 2	44		"
Fluhart No. 3	14	44	66
Hurd Shaft	" …	** 10 10	Taalraan
	Slone		
Hurd Slope Iones No. 1	Slope	Jones Coal Co	
JOHES 140. 1	Sualt	Jones Coal Co	

## MINES EMPLOYING MORE THAN TEN MEN.

## JACKSON COUNTY-Continued.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Jones No. 2	Slope	Jones Coal Co	Jackson
Higgins	Drift	J. W. Higgins	Coalton
Price	"	Gosline & Barbour	Toledo
Northern	Shaft	Jones & Morgan	Jackson
No. 3	Slope	44	"
Eclipse	Drift	Eclipse Coal Co	"
Coalton No. 3	"	Coafton Coal Co	Coalton
Ohio or Indiana	Slope	Ohio Coal Co	Jackson
Emma	Shaft	Emma Coal Co	"
Emma, new	"	44	44
Forest or Jackson Hill	Drift	Jackson Hill Coal Co	"
Standard	Shaft	Standard Coal Co	"
Ada No. 1	"	Ada Coal Co	"
Ada No. 2	"	66	66
Globe No. 3	"	Globe Iron Co	"
Comet	"	Comet Coal Co	Wellston
Eliza	"	Eliza Coal Co	"
Riverton	Drift	Riverton Coal Co	Riverton
Star No. 3	Slope	Star Furnace Co	Tackson
Milton No. 1	Shaft	Milton Coal Co	Wellston
Milton No. 2	"	66	"
Buckeye	Drift	Buckeye Coal Co	Coalton
Wainwright	Shaft	Wainwright Coal Co	Wellston
Central	Slope	Central Mining Co	Tackson
Tropic	Drift	Tropic Iron Co	
Hipple	"	Hipple Coal Co	Coalton
Poling No. 2	"	Poling Coal Co	Dayton
Alma	Shaft	Alma Coal Co	Glen Roy
Price	Drift	Price Bros	Jackson
Victor No. 1	"	T. J. Evans	Coalton
Iron Valley	"	Iron Valley Coal Co	Jackson
Garfield	"	Garfield Coal Co	Coalton
Sells	"	Sella Bros	44
Tom Corwin No. 1	Shaft	Tom Corwin Coal Co	Wellston
Tom Corwin No. 2	"	"	"
ones Coal Co	Drift	E. J. Jones	Oak Hill
Oak Hill	"	"	- "

Name of owner or operator.	Postoffice address.
Æina Coal Co	Jackson
John Law	"
Thos. Davis Coal Co	Oak Hill
Williams Bros	Coalton
J. D. Thomas	Oak Hill
efferson Furnace Co	46
Thos. Rhodes	Coalton
Alex Oman	44
ohn Thompson	Jackson
Andrew Law	" "

### MINES EMPLOYING LESS THAN TEN MEN.

## JACKSON COUNTY-Concluded.

Name of owner or operator.	Postoffice address.
John W. Simpson.  John A. Davis.  Wm. C. Chambers.  Portsmouth Coal and Mining Co.  T. J. Kelley  Clare, Duduit & Co.  John S. Evans.  Rowe & Hutchison.  J. F. Houser.  E. D. Kelley	Jackson Portsmouth Chapman Remple Thurman Jackson Chapman

### MINES EMPLOYING MORE THAN TEN MEN.

### JEFFERSON COUNTY

Kind.	Name of owner or operator.	Postoffice ad- dress.
Drift	W., L. E. & Pittsburg Coal Co.	Dillonvale
"	John Francy & Sons	Toronto
Drift	Ruthven Coal and Coke co Wallace, Banfield & Co	Alliance Irondale
Drift	Calumet Fire Clay Co S. N. & W. G. McCullough	Calumet Linton
Slope Drift	John Kirk Kelley Coal Co	Lathrobe, Pa. Bergholz Portland Sta. Bergholz
	Drift Shaft Drift Shaft Shaft Drift	Drift W., L. E. & Pittsburg Coal Co.  " " " " " " " " " " " " " " " " " " "

Name of owner or operator.	Postoffice address.
Preeman Fire Clay Co	Freeman
Freeman Fire Clay Co	. Hammondsville
Lodge & Curfman	. Steubenville
Lodge & Curfman Stratton Bros	. Empire
William Nelson	. Steubenville
F. W. Vandine	•

# MINES EMPLOYING LESS THAN TEN MEN.

# JEFFERSON COUNTY—Concluded.

Name of owner or operator.	Postoffice address.	
John Bates, Sr		
Gt. Western Fire Clay Co Connor Fire Clay Co Empire Fire Clay Co Samuel Carmon John Trushell	" " Empire	
F. B. Wolfe	Smithfield " " Steubenville Toronto	
Martin Wright	Steubenville Wheeling, W. Va	
J. C. Riley	Irondale Bloomingdal <del>e</del>	
Henry Cox	<b>.</b>	

## MINES EMPLOYING MORE THAN TEN MEN.

## LAWRENCE COUNTY.

Name of mine.	Kind.	Name of owner.	Postoffice address.
New Castle	" " "	Means, Kyle & Co	Ironton Vesuvius " Ironton Campbell

## MINES EMPLOYING LESS THAN TEN MEN.

## LAWRENCE COUNTY—Concluded.

Name of owner or operator.	Postoffice address,
T. R. Cook	Culbertson
J. R. Cook	Ironton
Frank Deegans	Coal Grove
John Sherman, Jr	
J. A. Blackwell	
Vesuvius Iron Co.	
<b>□</b>	1 =
Bester & Scherer	
Richey Coal Co	
Wm. Fink	•
Butler & Bridge	•1
ohn G. Lane	d "
Henry Freka	·  "
as. Richey	·I
Ward & Baldwin	
A. J. Apels	
A. R. Abele	
McGugin & Co	Olive Furnace
P. J. Carey	Coal Grove
Forestdale Fire Brick and Tile Works	. Ashland, Ky
saac Peters	Ironton
L. K. Bartley	.  "
E. B. Willard	
Aetna Iron Works	Ironton
Geo. Griffith	
. W. Phillips.	
B. F. Lynd	
Creighton Steed	Forestdale

### MINES EMPLOYING MORE THAN TEN MEN.

### MAHONING COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
BeloitStoffer	Shaft Slope Shaft	Youngstown Paving Brick Co. Washingtonville Coal Co Fairview Coal & Mining Co Mahoning Coal Co	Youngstown Washingt'nville Cleveland

Name of owner or operator.	Postoffice address.	
Geo. Buzzard		
R. Z. Lloyd.	East Lewistown	
S. S. Mentzer	North Lima	
Spait Coal Co	"	

## MINES EMPLOYING LESS THAN TEN MEN.

## MAHONING COUNTY-Concluded.

Name of owner or operator.	Postoffice address.	
John McGill.	North Lima	
John McGill	4	
Ferdinand Mentzer	<b> </b> "	
E. H. Hahn		
Solomon Paulin.		
Hahn & Little		
Robert Hunter		
Thos. Tyrrell		
E. Ruhlman		
A. W. Harrold		
Robert Auld		
Wm. Stone	"	
J. C. Shepherd		
James Curiman		
Godward & Son		
David Coy		
John C. Devine		
Barter & Hemingway	Beloit	
Ralph Urmson	Alliance	
David Hemingway		
Josiah Paulin		
Daniel Little		
H. A. Paulin		
Wm. J. Jones & Son		
McDonalds & Muir		
Greenford Fire Clay Co	Greenford	
W. J. Greenameyer	Garfield	

## MINES EMPLOYING MORE THAN TEN MEN.

## MEDINA COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Ridorado	Slope Shaft Slope	Card & Barrett Coal Co	

## MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice address.
Birkbeck & Sons	Wadsworth
Cunningham Coal Co	"
Frank Keichard	western Star

## MINES EMPLOYING MORE THAN TEN MEN.

### MEIGS COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice ad- dress.
Peacock	Drift	Peacock Coal Co	Pomeroy
Coal Ridge			"
Charter Oak	"	Charter Oak Coal Co	44
Syracuse Shaft	Shaft	Syracuse Coal & Salt Co	Syracuse
Syracuse Slope	Slope		"
Minersville		Minersville Coal Co	Minersville
Rolling Mill		Martin Ebersbach	Pomeroy
Williams	"	John E. Williams	"
King	"	John Mason & Son	Middleport
Excelsior		B. Koehler	Pomerov
Silver Run	Drift	William Russell	
Bear		J. W. Coutrell	
Glendale		Kanawha Salt Co	Minersville

Name of owner or operator.	Postoffice ad dress.	
Thos. Scott	Middleport	
Jas. M. Roush		
Henry Proida	"	
John Kitchens	Minersville	
Gottlieb Bentz	Pomeroy	
John C. Michael	Middleport	
O. L. Bradford	Pomeroy	
Richard Anderson	"	
Eli Roush & Sons	Minersville	
Wm. Karr	"	
John J. Williams	"	
Hondashelt & Stobert	"	
Fink & Thompson	Middleport	
Peter Brechtei	" "	

### MINES EMPLOYING MORE THAN TEN MEN.

### MUSKINGUM COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Princess	Drift	Perry Smith	Zanesville
Salt Run			Cleveland
East Hill	"	A D. Morrison	Stovertown
Franklin		Maynard Bros	Columbus
Chestnut Valley	"	Michael Fisher	Zanesville
Garrett		Jos. Garrett	Philo
Blue Rock		Blue Rock Coal Co	
Diamond No. 2	"	C. W. Joslin	Zanesville
Werner No. 3		W. A. Werner	"
Ballou		Curtis & Mahor	"
Lehew		O NC V-1	
Harner's 3 ft	"		"
Harper's 3 ft Cannelville	"	John McNalley	"
Neff's	"	J. R. Andrews	"

Name of owner or operator.	Postoffice ad dress.	
J. W. Foutch	Zanesville	
ohn Lutz	**	
Griener Bros	"	
Thos. Potts	"	
Ohn W. Andrews		
Isaac Melvin.		
Bridwell & Barton		
Buckeye Pressed Brick Co		
Wm. L. Combs.		
Henry Spinks		
August German		
A. L. Brown		
D. L. Hopkins		
William Tahald	"	
William Uphold	44	
William Dickson		
C. L. Schultz		
George Harper		
C. W. Fisher		
R. Griener		
ohn Morgan		
3. W. Besser		
N. F. Swank		
oseph Purcell		
. W. Severance		
os. Bridwell		
ohn P. Pansler		
David E. Henke	"	
Abram Emery	"	
ohn Deitenbeck	ļ "	
R. G. Thompson	White Cottage	
M. W. Campbell	Hopewell	
Emanuel Van Allen	" "	

## MINES EMPLOYING LESS THAN TEN MEN.

## MUSKINGUM COUNTY—Continued.

Name of owner or operator.	Postoffice address.
J. W. McCormick	Ellis
Porter Bros	Coaldale
Jos. Porter	"
Isaac Sellars	Hopewell
Ira Morrison	""
William Dick	17.
Geo. L. Starky	Coaldale
Prank Dick	Guilbert Coaldale
Ewing Fletcher.	Dresden
Daniel Hock	Philo
Thos. Rider	Roseville
L. C. Hamilton	Otsego
Wm. F. Trimble	"8"
G. F. Riney	• •
John F. Smith	"
Wm. R. Jackson	"
W. R. Buker	"
Chas. P. Walker	"
J. B. Denney	l_ "
H. D. Eppley	Duncan Falls
Chas. Wright	Dresden
Jos. Jamison	"
R. B. Crozier	
Eli Gourley	Frazeysburgh
C. C. Horner	
Chas. Ogle	Dresden
T. J. Buchanan	
John Harper	Frazeysburgh
Neal Bros. & Co	Dillon
Webster & Wolfe	"
Frank Cullins	Frazeysburgh
Samuel McGhee	Ellis
Frank Heebner	"
Wm. Cornell	Otsego
G. W. Gorden	Roseville
Johnson & Decker,	Norwich
S. Varner	Hopewell
Chas. Porter	· .
Milton Griffin	Dresden
T. J. Comer	1 "
Samuel Stuller	1 "
Dresden Clay Co	16
V. H. Blackstone	Sago
John McNulty	
Henry Best	- Selica Airie
Joseph Miles	44
Lewis Harper	
Frank Swope	`} "
Spence & Allen	
The Hysell & Davis Coal Co	Dillon
Connaway & McConnell	
I. G. Baughman	Roseville
William Temple	Zanesville

### MINES EMPLOYING LESS THAN TEN MEN.

### MUSKINGUM COUNTY-Concluded.

Name of owner or operator.	Postoffice address.
Frank Lacey John A. Wigton Monroe Waxler Siler Coal Co. M. W. Williamson Andrew Hagenhouse N. T. Gant John German G. W. Brown, Jr R. F. Wallace John Green A. K. Moorehead	Roseville Philo McConnelsville Dillon Zanesville " Roseville " Junction City

# MINES EMPLOYING MORE THAN TEN MEN.

### MORGAN COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
RoseBlack Diamond	Drift Slope	Carding Bros	Rose Farm

### MINES EMPLOYING LESS THAN TEN MEN.

### MONROE COUNTY.

Name of owner or operator.	Postoffice address.
William Morris	
B. F. Givens	
T. W. Bruce	
William Steel	
Wm. Woodland	
Truex & Powers	
S. R. Carlton	
George Coats	Woodsfield

## MINES EMPLOYING MORE THAN TEN MEN.

#### NOBLE COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Glenwood	Drift	J. J. Phillips	Cleveland

Name of owner or operator.	Postoffice address.
Thos. Paisley	Cumberland
Thos. Simpson	
H. C. Hunter	16
Jacob Shott	Berne
Henry Miller	Fulda
John I. Smith	Berne
E. P. Sullivan	Summerfield
John A. Franklin	Whigville
W. H. Franklin & Bro	
Jas. Donnelly	
Jas. Sparling	. "
Wm McLaughlin	Sarahsville
Young Bros	. "
C. L. McKee	
E. Davis	
W. W. McClintock	
F. S. Beymer	. "
Bowen & Crawford	"
N. M. Meek	
ohn Daniels	Stafford
D. O. Young	Summerfield
R. J. Matheny	Enoch
2. W. Day	
Wm. Yonally	
R. Vance	• [
Davis & Miller	
Dakley & Sloan	
David Vance	
Perry Kemp	
S. J. McConnel	
Wm. S. Bonar	
Theodore Boyd	
Andrew Polin	
. W. Bryan	
D. R. Curtis	
Theodore Love	• 1
W. H. Taylor	
Willis Lelsure	
A. Henderson	
F. A. Pettay	Sarahsville
M. Archer	. Enoch

## MINES EMPLOYING MORE THAN TEN MEN.

### PERRY COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
No. 3	Drift	C. & H. C. & I. Co	Columbus
No. 5	"	Troy Coal Co	New Straitsville
No. 8	Shaft	Sunday Creek Coal Co	Columbus
No. 21	Drift	Guiday Cicca Coar Co	"
Rends No. 3	Shaft	W. P. Rend & Co	Chicago, Ill
Upson No. 1	Drift	Upson Coal Co	Shawnee
Eagle	"	Eagle Coal Co	
Green Hollow No. 1	"	W 31 0- 1 0	Redfield
Chicago	"	u	"
XX	"	*****	Shawnee
Congo	Shaft	Congo Mining Co	Columbus
Iron Point No. 2	Drift	Chas. Andrews, Agent	Zanesville
Eastern	Slope	Dean & Co	Redfield
Manley or Furnace No. 2	Drift	Gosline & Barbour	Toledo
Shawnee Valley	"	Shawnee Valley Co-op. Coal Co	
Dickson	"	I. C. Hamilton	Dicksonton
Hemlock	Slope	Columbus & Shawnee Coal Co	
Black Diamond No. 1	Drift	Black Diamond Coal Co	New Straitsville
Black Diamond No. 2	"	Black Blamond Coal Co	11CW Delatesville
Hazelton	"	Beard and Davey	"
Lower	"	M D 9 A-	Crooksville
Block or No. 2	"	Tames & Danmass	McLuney
Hart	"	A	Crooksville
New Crescent	"	New Crescent Mining Co	Roseville
No. 37	"	Calvin Essex	New Straitsville
No. 13	"	Ohio Control Book Co	New Hamburgh
Co-operative	"	Martin and Roan	
Zanesville Coal Co	"		Zanesville
Union	"	01::- 0 - 1 1 0 4 0	Columbus
No. 11 or 139	"	Gt. Vein Coal Mining Co	New Straitsvill
Bristol	"	Bristol Coal Co	Newark
Lyonsdale	"	W Wasness	Lyonsdale
Superior	"	C	Glouster
Simons	"	A D Cimens	Redfield
No. 75	"	Daddan 0. 13-han 0a-1 0a	
ron Point No. 1	"		Shawnee
Briar Hill	Slope	Underwood & Newlon	Rose Farm
XX Furnace	Drift	Taylor, Williams & Jenkins	Shawnee

## MINES EMPLOYING LESS THAN TEN MEN.

## PERRY COUNTY-Concluded.

Name of owner or operator.	Pos	toffice ad- dress.
Faine & Co	New	Straitsville
Davis & Hughes	1	"
M. Wilson & Co		"
Seth Robinson		44
Wm. Alexander & Co		14
George Howe	]	"
]as. O'Donnell	i	"
White & Thompson		, "
W. J. Stewart & Co	ı	• 66
Emerick & Powell		"
Thos. Phillips		mee
John Butler		Lexington
George Parker		B10T
Mark Smith	Some	ersett
Crawford, Gaver Bros. & Co		uneville
Jacob Hammond		aster
O. J. Archer		ersett
Maple Hill Coal Co.		
A. J. Yost		ersett
Thos. A. Green		er <b>ac</b> tt
		44
James E. Fink		
Glendale Coal Co		
Davey, Beard & Co		Straitsville
M. Cox & Co		"
Watkins & Co		
Ohio Mining & Manufacturing Co		
Pred Corder	Som	ersett
Caleb Blake	New	Lexington
Mrs. Angie North		both
Geo. Irven		Lexington
Hart & Mason	Glou	
Geo. Edley	New	Straitsville
Fahey Coal Co	.]	"
Irwin & Lair		Lexington
Brilliant Stoneware Co		Farm
Samuel McKeever		ksville
Call, Hughes & Co		Straitsville
Coyle Coal Co		
John Green		ersett
L. A. Flowers		"
Sowers & Brown		ksville
DOMETS OF DIAMETER.	. C100	WDAIIIC

### MINES EMPLOYING MORE THAN TEN MEN.

## PORTAGE COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Filer's New Shaft	" "	Filer Coal Co	Diamond Lloyd "

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### MINES EMPLOYING LESS THAN TEN MEN.

### PORTAGE COUNTY—Concluded.

Name of owner or operator.	Postoffice address.
Wilson & Cope	Atwater Center Palmyra

### MINES EMPLOYING MORE THAN TEN MEN.

#### SCIOTO COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Black Ore		Means, Kyle & Co	Hanging Rock

### MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice ad- dress.
Scioto Brick, Clay, Coal & Ice Co	Scioto Furnace Bloom Switch Hanging Rock Gervais Eitort

### MINES EMPLOYING MORE THAN TEN MEN.

#### STARK COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Willow Spring		Ridgeway, Burton & Co	Massillon
Hern Brook		"	"
North Massillon		"	"
South Massillon	"	**	"
Miller Hill	"	Howell's Coal Co	"
Rose Hill No. 1	Drift	"	"
Rose Hill No. 2	"	"	**
Elm Run No. 2			44
Upper Pigeon Run		Warwick Coal Co	"
Warwick	"	"	44
Minglewood Shaft		Jas. Mullins	Wooster
Minglewood Slope	Slope	"	"
Millport	Shaft	Millport Coal Co	Massillon
Camp Creek		O. Young Coal Co	Cleveland
Clover Hill		Fox Lake Coal Co.	"
West Massillon No. 2		West Massillon Coal Co	Massillon
West Massillon No. 3		4.	"
m cat massingli No. a		••••••	

## MINES EMPLOYING MORE THAN TEN MEN.

### STARK COUNTY-Continued.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Pigeon Run Summit Hill Taylor Western Ohio No. 1 Lake Erie No. 1 Davis Fox Run Pleasant Valley Wainwright Nutwood Youngs Shaft Massillon Standard	Drift Shaft Shaft Slope Drift Slope Trift	L. E. Smith	Churchill Massillon

Name of owner or operator.	Postoffice address.
H. Simons	Canal Fulton
John Mark & Co	Osnaburgh
William Alberts	
A. M. Carr	Alliance
H. M. Martin	
Henry Thouvenin	Waco
I. C. Ślusser	Mapleton
G. Cartwright	Robertsville
Frank Heims	Waco
Lahmiller & Kitzmiller	**
J. M. Sausser	
Bolinger & Rice	
William Reibestein	"
Keebel & Mathews	Louisville
Franklin Bolinger	Osnaburgh
B. F. Meiser	
E. Rice	
Daniel Dehoof	Mapleton
Grant Brown	Osnaburgh
Canton & Osnaburgh Brick & Tile Works	
Daniel Richards	North Industry
Anthony Kramer	Waco
Thouvenin Bros	
H. A. Harsh	
Frank Bowen	
August Smith	
Louis Daum	
A. Garanx	North Industry
Waynesburgh Brick & Clay Co	Waynesburgh
Anchor Tile & Clay Co	Canton
David Warburton	
H. H. Beasecker	
Canton Stoneware Co	
L. R. Tressell & Co	
Mishler Pottery Co	

## Mines Employing Less Than Ten Men. stark county—Concluded.

Name of owner or operator.	Postoffice address.	
Albert Smith Canton Pressed Brick Co L. Choffin John Moore Jacob Schlemmer William Snider J. S. Davis H. S. Graham Wm. Somerville Jeremiah Hayman William Slutz Robert Thirwall. Geo. Battershell George Minser	Osnaburgh Canton Waco Crystal Springs Waco "Canton New Berlin New Franklin Myers Station Howenstien Osnaburgh Alliance Waynesburgh	
V. T. Nordick & Sons J. W. Shaw Pefferby & McFadden Christian Warstler	Minerva Canal Fulton	
Levi Hair D. & K. Slutz W. H. Westgarth	Navarre	

# MINES EMPLOYING MORE THAN TEN MEN. SUMMIT COUNTY.

Falls Coal Co	Co Akron '' Cuyahoga Fall
	Lake View Coal Brewster Coal C Falls Coal Co Hall Bros

Name of owner or operator.	Postoffice address.
George A. Rex & Son	Reservoir
T. E. Reninger	
Lewis John	
Hametown Retail Coal Co	Hametown
Thomas Coal Co	Cuyahoga Fall
William H. Wilson	Krumroy
Johnson Coal Co	Nimisila
Joseph Whittecar	Inland Western Star
Adam Keihl	
Thomas & Dodd	

# Mines Employing More Than Ten Men. TRUMBULL COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Keel RidgeAddison	Drift Shaft Drift	Keel Ridge Coal Co	Sharon, Pa. Girard Sharon, Pa.

## MINES EMPLOYING LESS THAN TEN MEN.

Name of owner or operator.	Postoffice address.
H. Johnson & Sons Evans & Sons	Sharon, Pa.
Keck & Son	
Davis Bros	Mineral Ridge
Edwards, Harris & Co	"
Mathews & Walters	

# MINES EMPLOYING MORE THAN TEN MEN. TUSCARAWAS COUNTY.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Somerdale, North	Drift	Somerdale Coal Co	Somerdale
Somerdale, East		"	"
Somerdale No. 2	"	"	"
Odberts No. 1	"	H. S. Odbert	Cleveland
Odberts No. 2	".	"	16
Odberts No. 3	"	66	"
Goshen No. 1	"	Goshen Coal Co	New Phila.
Goshen No. 2	"	"	"
T. V. No. 1	"	Midvale Goshen Coal Co	Massillon
Brock Hill No. 3	"	"	"
Midvale No. 2	"	"	"
Wainwright No. 4	Slope	46	"
Wainwright No. 5	· · · · ·	"	66
Eagle Hill		Wm. R. Jones	Zoar Station
South Side	"	C. E. Holden	Mineral Pt.
Acme			"
Huffs Run	"	Ridgeway, Burton & Co	Massillon
Trenton	"	H. C. Minnich	Tuscarawas
Tunnel Slope	Slope	Brick Bros	Mineral Pt.
Mason	Drift	Mason Bros	

## MINES EMPLOYING MORE THAN TEN MEN.

## TUSCARAWAS COUNTY—Continued.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Royal	6. 66 66 66	Royal Fire Brick Co C. J. Nungesser Schindler Bros Buckhorn Coal Co Dover Coal Co E. Van Kirk Twin City Coal Co J. W. Laughlin George J. Markley	Beidler Tuscarawas Cleveland Canal Dover Mineral Point Dennison

## Mines Employing Less Than Ten Men.

Name of owner or operator.	Postoffice address.
Todd & Crooker	
Aaron Jackson	
John Wilcoxen	
Ben Beans.	
Werner & Stein	
John Oliver	
Peter Reeves	
J. A. Horn	
Edward Minne	
Robert Sewell	
Morgan & Hines	
Winfield Skeels	
O. M. Clay	
Edwin Carroll	Uhrichsville
[. W. Fetter	
John M. Smith	"
David Jesse	"
M. Godward	
Diamond Fire Clay Co	
Cyrus Fitzpatrick	. "
Uhrichsville Fire Clay Co	
Buckeye Fire Clay Co	
Frown Fire Clay Co	
Hadly, Ellis & Tidswell	Somerdale
American Brick & Clay Co	Mineral Point
ohu Grove	Beach City
Perry Storksdale	Canal Dover
os. Shilling	"
Wm. Krantz	
Penn. Iron & Coal Co	
acob C. Baker	
W. A. Shipton	
David Dunlavey	
Advance Fire Clay Co	
Iowell Williams	
ustave Kwenzle	
1. L. Kuhns	

# MINES EMPLOYING LESS THAN TEN MEN. TUSCARAWAS COUNTY—Concluded.

Name of owner or operator.	Postoffice address.
Wm. Staneart	Dennison
Seward English	
C. B. Werner	
Edward Leiser	
Strong & Harmon	
Henry Miller	. Blakes Mills
Geo. W. Mathi <b>as</b>	
Earnest Haneter	
The Zoar Society	
Harvey Gibbs	
Jos. T. Patton	-1
George Dunn & Son	. New Phil'delpa
Edward Burtscher	4
John Campbell	
Brchard Coal Co	Cleveland
W. W. Norris	
Laughead & Tufford	
Hardwedge & Brazell	
McClelland Wardel	
Nathan Bixler	. Bolivar
G. Newton	1 =

# Mines Employing More Than Ten Men. vinton county.

Name of mine.	Kind.	Name of owner or operator.	Postoffice ad- dress.
Elko	Drift " Shaft Drift	Elko Coal Co	Hawks Mineral Minerton Chicago, Ill. Oreton

Name of owner or operator.	Postoffice address.
Dexter Bros	. Bolin Mills
Chas. Brown	
Henry Robinett	
Gilman & Gold	"
Enos T. Winters	
Hezekiah Heasley	Zaleski
John Blore	Radcliff Hamden Junct
Devault Bros	
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# Mines Employing More Than Ten Men. washington county.

Name of mine.	Kind.	Name of owner or operator.	Postoffice address.
Pelix	Slope	Hickman Coal Co	. Coal Run
Min	es Emplo	YING LESS THAN TEN MEN.	
Name	of owner	or operator.	Postoffice ad- dress.
Dobbin & Smith			Coal Run Lowell Coal Run
Mine		VING MORE THAN TEN MEN.	
Name of mine.	Kind,	Name of owner or operator.	Postoffice address.
Clinton or No. 2	"	Fox Lake Coal Co	. Cleveland . Doylestown . Massillon
Мім	es Emplo	oving Less Than Ten Men.	
Name	of owner	or operator.	Postoffice address.
Seiberling, Miller & Co. J. H. Morgan			Doylestown Fredericksburg

## FIRE CLAY MINES OF OHIO.

Name of firm.	Postoffice address.
ATHENS COUNTY.	
Athens Brick Co  Nelsonville Sewer Pipe and Manufacturing Co	Nelsonville Trimble Nelsonville
BELMONT COUNTY.	
George O. Robison	Bellaire
CARROLL COUNTY.	
Canton and Malvern Fire Brick and Paving Co	Malvern Minerva Malvern
COLUMBIANA COUNTY,	
F. P. Wherry Union Fire Clay and Stone Co Michael Murphy Keystone Fire Clay Co Knowles, Taylor & Anderson Co Globe Pottery Co John Wooster Stephens, Moore & Co Standard Pottery Co Furnace Fire Clay Co N. U. Walkers Clay Manufacturing Co Buckeye Brick Works Co S. Y. Howell U. S. F. C. Co Excelsior Fire Clay Co Chas. Walters John Lythe & Sons Cone Fire Clay Co Wm. A. Ward	Lisbon Bast Liverpool Lisbon East Liverpool "Wellsville Bast Liverpool Salineville "Walkers Wellsville Salem 2d Nat, Bank Bldg Pittsburg, Pa. Lisbon Wellsville Salem Wellsville
HOCKING COUNTY.	*
Hocking Clay Manufacturing Co	Logan Haydenville Union Furnace Logan Gore
HOLMES COUNTY.	
David Miller	Mt. Hope Millersburgh

#### EXECUTIVE DOCUMENTS

## FIRE CLAY MINES OF OHIO-Continued.

Name of firm.	Postoffice address.
JACKSON COUNTY.	
•	
Oak Hill Fire Brick Co	Oak Hill
THE PARTY OF THE PARTY.	
Jefferson county.	
Stratton Bros	Empire
Toronto Fire Clay Co	Steubenville
Kimpire Fire Clay Co	Empire
Minor Fire Clay Co	Freeman's Sta.
Excelsion Sewer-nine Works	Calumet
Calumet Fire Clay Co.	"
Excelsior Sewer-pipe Works. Calumet Fire Clay Co	Toronto
Gt. Western Fire Clay Co	**
John Francy & Sons	"
Kennedy, Kling & Co	
Wallace Mining and Manufacturing Co	Hammondsville Toronto
Markle Sewer-pipe Co Hannam & Smith	1010110
C Canada C Commission of the contract of the c	
LAWRENCE COUNTY.	
George Griffith	Ironton
Thomas Myers	"
Forestdale Brick and Tile Works	
Means Kyle & Co	Hanging Rock
E. B. Willard & Co	Steece
MAHONING COUNTY,	
Youngstown Paving Brick Co	Reloit
Greenford Fire Clay Co.	Greenford
Greenford Fire Clay Co	Salem
Robert Auld	16
MUSKINGUM COUNTY.	
G. W. Brown	Roseville
Pace Bros. & Co	- "
W. B. Harris & Bros	Zanesville
American Encaustic Tiling Co	"
Buckeye Pressed Brick Co	44
E. M. Ayers	44
I. H. Beem	Roseville
J. B. Owens Pottery Co	Zanesville
W. B. Lowry	Roseville
Harris Bros. & Lane	Zanesville
John W. Wigton	Roseville
Marion Allen	Zanesville
Abram Emery	Roseville
Guilbert Russell	44
S. Zanesville Sewer-pipe and Brick Works Co	S. Zanesville
C. C. Crabtree	Zanesville
Ross Johnson	
George Smith	Zanesville

#### INSPECTOR OF MINES.

## FIRE CLAY MINES OF OHIO-Continued.

Name of firm.	Postoffice address.
PERRY COUNTY.	
Diamond Stoneware Co	Crooksville
Crooksville Stoneware Co. Brilliant Stoneware Co. Burley, Winter & Co. W. A. Bradshaw. Samuel Hightshoe. Buckeye Stoneware Co. G. H. Moore. J. J. Brown. Rodgers, McDonald & Co.	Somersett Buckeye Cottage Crooksville
Samuel McKeever	Crooksville Roseville
SCIOTO COUNTY.	
Scioto Star Fire Brick Works	"
Webster Fire Brick Co	S. Webster
STARK COUNTY.	
Waynesburgh Brick & Clay Co	Waynesburgh Canton
Canton Standard Brick Co	North Industry Canton
Rev. J. H. Harrier	 Canton
Navarre Stoneware Co	Navarre Massillon
Canton Stoneware Co H. B. Camp Co Miskler Pottery Co	Aultman Canton
Harry Thompson	Cuyahoga Falls Magnolia Akron
SUMMIT COUNTY.	
Whitmore-Robison Co	Akron
Crown Fire Clay Company	"
Akron Sewer-pipe Co	"
Akron Sewer-pipe Co	"
A. J. Weeks	<b>1</b> "
F. H. Weeks	"
Akron Clay Co	"
E. H. Merrill & Co	"
I. Madlem	N. Springfield Mogadore

#### EXECUTIVE DOCUMENTS.

#### FIRE CLAY MINES OF OHIO-Concluded.

Name of firm.	Postoffice address.
SUMMIT COUNTY.	
Reuben Swinehart  J. Stetler  Diamond Fire Brick Works	N. Springfield
TRUMBULL COUNTY.	
1. V. Rose	Sharon, Pa
TUSCARAWAS COUNTY.	
C. E. Holden	" Uhrichsville " " " Midvale Uhrichsville Canal Dover

# IRON ORE FIRMS OF OHIO.

Name of firm	Postoffice address.
Jackson county.	
Globe Iron Co	Jackson
Tropic Iron Co	, "
Star Furnace Co	"
Jefferson Furnace Co	Oak Hill
Clare, Duduit & Co	Rempel
LAWRENCE COUNTY.	
Forestdale Brick & Tile Works	Ashland, Ky.
Means, Kyle & Co	
Vesuvius Furnace Co	Pedro
John Peters Iron Co	Culbertson
E. B. Willard	
Hecla Iron & Mining Co	
McGugin & Co	
Campbell Iron Co	Campbell
SCIOTO COUNTY.	
Clare Iron Co	Bloom Switch
Means, Kyle & Co	Hanging Rock Eifort

# LIST OF LIMESTONE QUARRIES IN THE STATE.

Name of firm.	Postoffice ad- dress
ADAMS COUNTY.	
John Morrison	
Ira H, Davis	
John McNeilan	
R. J. Kincaid	Locust Grove
W. W. Morrison	Wilson
ALLEN COUNTY.	
T. C. Long	Allentown
Frank Roush	Lima
H. S. Sanford	"
Edward Gray	"
Tetter & Sons	"
E. F. Davis	
John Joseph	
T. W. Long	Cranberry
Watt Bros	Herring
Staley & DickasonPatterson Bros	Ada
J. C. Marsh	Herring
J. C. Steiner	
Siddall & Townsend	
G. F. Greenwald	
D. P. Shumacher	Columbus Grove
Mrs. Ben Mollet	
Conrade Tripplehorn	
Aaron Fisher	
E. J. Ford & Bro	
F. M. Sweaney	
R. Teegarden	
Heath & May	
B. D. Myres & Son	Scott's Crossing
Jacob Custer	Lima
D. T. Jones & Co	Vendocia
BUTLER COUNTY.	1
John Kilfoyle	Hamilton .
D. M. Skelley	"
J. B. Scott	"
G. Kuentzle	l
Nelson Good	Trenton
Samuel Alsburger	Woodsdale
Jacob Nichel	Excello
R. J. Livingston	Symmes' Corners
W. H. McCurley	Ross
Ben Smith	Middletown

## EXECUTIVE DOCUMENTS.

Name of firm.	Postoffice ad- dress.
CLARK COUNTY.	
J. W. Jenkins	Springfield Cold Springs
Petticrew & Bro	Springfield
Samuel S. Taylor	66 66
Moores Lime Co	44
CLERMONT COUNTY.	
Hirsch, McKibben & Co	Pt. Pleasant Spann
CRAWFORD COUNTY.	
Ben Zellner John Snavely	Lykens Osceola
Jos. Snavely	Bucyrus Lykens
CLINTON COUNTY.	
Henry Huff	Wilmington
R. B. Smith	66
M. H. Miars	66 66
Jasper Brown	46
J. W. Frazier Henry Hollingsworth Isaac Clark Ephraim Troville	Kingsman New Vienna Blanchester
John Oliver	Lumbarton Wilmington
John J. Marshall I. M. Stalter	Blanchester
DELAWARE COUNTY.	
Chas. McGuirk	Delaware "
Jas. Crichard F. L. Campbell J. C. Merchant.	Warrenburgh Delaware Jerome
Thos. Owens	Delaware Rathbone
Jones & Meredith  Case & Parson  J. C. Merchant	Radnor Powells Rathbone
S. E. Merchant	Kathoone (

## INSPECTOR OF MINES.

Name of firm.	Postoffice ad- dress.
DARKE COUNTY.	
S. V. McCabe	Weavers Station Gettysburgh
ERIE COUNTY.	·
andusky Stone Co	Sandusky
Dlemacher Lime Co	"
erome Widmer	+ 6 64
Chas. Schoeffle	u
4. B. Johnson & Co	"
1. J. Callan	•6
M. Wagner	Cleveland
FRANKLIN COUNTY.	
onas Wilcox.	Columbus
Caylor, Beall & Co	Cordinana
Ienry Liniman	46
f. J. Price & Co	66
Casperis Stone Co	"
M. McNinch ames F. Legg	Marble Cliff
Vm. Lamb	Dublin
GREEN COUNTY.	
Robert Spahr	Xenia
). S. Irwinohn B. Taylor	Cedarville
Boots, Bickett & Conklin	New Jasper
	Yellow Springs
Alfred March	Xenia
I. J. Archer	Zimmerman
HAMILTON COUNTY, 1	
Syrnes & Droch	Cincinnati
udwig Grower	"
rnest Howe	"
rchibald Coulter	"
ohn Goodman	"
ohn Zinck	66
fathew Slatterly	44
as. Farrell	Montgomery
Benj. Cooney	Road, Cin. Cincinnati
Ienry Stagg & Sons	"
Arthur W. Davis	" O
f. E. Weihe	Carthage Loveland
I. Maschunver	Pleasant Ridge
	Cincinnati
Cincinnati & Westwood R. R. Co	Silverton
Cincinnati & Westwood R. R. Co	
Cincinnati & Westwood R. R. Co	Glendale
Cincinnati & Westwood R. R. Co	

# EXECUTIVE DOCUMENTS.

Postoffice ad- deess.
Arlington Findlay " " " "
Ada Blanchard Ada Blanchard Dunkirk Kenton " Dunkirk Kenton
Greenfield "Samantha Greenfield Leesburgh Lynchburgh Greenfield Hillsboro Lynchburgh Shackelton Sugartree Ridge
Millersburgh
Oak Hill Remple
Bellefontaine  "Belle Center New Richland W. Middleburgh West Liberty W. Middleburgh West Liberty " " Belle Center

## INSPECTOR OF MINES.

Name of firm.	Postoffice address.
LAWRENCE COUNTY.	
Vesuvius Furnace Co.  E. B. Willard & Co.  Means, Kyle & Co.  Hecla Iron & Mining Co.  Campbell Iron Co.  John Peters Iron Co.  McGugin & Co.	Hanging Rock Ironton
LUCAS COUNTY.	
George Zellar. Thos. Hehehan. J. L. Pray & Son. Stephen Brohan C. W. Ryan.	Maumee Toledo White House "
MARION COUNTY.	
Jas. G. Fairbank & Co.  Owens & Evans	Marion Owens Marion
MIAMI COUNTY.	
Vore & Westfall	66 66
Stoltz Bros	Bradford Ludlow Falls
G. W. McCabe Ohio Marble Co Wm. Huffman	"
G. W. Butt. D. L. Face. J. W. Ruhl. C. B. Fletcher	Covington " "
Chas. Boeringer.  August Burch.  Levi Falknor.	"
Oliver Nichodemus.  J. M. McLaughlin  Nichodemus Bros.  I. M. C. Dean	"
H. B. Shoup	Sulphur Grove
Isaac Clapp	Covington

## EXECUTIVE DOCUMENTS.

Name of firm.	Postoffice address.
MONTGOMERY COUNTY.	
Wm. Huffmar. & Co	Sulphur Grove Dayton  Centerville Dayton  Trotwood
Jesse L. Jackson	Vandalia
MOURIN Bros	Bridgeville Zanesville Ellis
OTTAWA COUNTY.	
Nelson Johnson  John Growey  N. E. Gregg & Co  Frank Holt  L. Heunen  Toledo White Lime Co  Genoa & Rocky Ridge Lime Co  Duncan & Buzzard  Clark Co  Limestone Lime Co  Dr. Joseph Kingham  Maurice Heeman  Kelley Island Lime & Transport Co	" Ottawa Toledo Williston Clay Center Limestone Rocky Ridge
PAULDING COUNTY.	
E. P. LaceyReason Johnson	Paulding Junction
PERRY COUPTY.	
H. HowdyshellDavid Hardy	Maxville
PICKAWAY COUNTY.	
George M. Star.k	Harrisburg
	0:-1:- 0
G. W. Nace	Sinking Sprin

#### INSPECTOR OF MINES.

	Parts 6 1
Name of firm.	Postoffice address.
PREBLE COUNTY.	
O. M. Wright	College Corners
R. M. Hayes	Fair Haven
Jonathan Paxton	College Corners
E. A. Ridenour	"
Danily & Hutton Peter Koppe	Eaton
Fisher Lime & Stone Co	13atOH
Jas. Saylor	"
Jas. A. Kantz & Co	"
Richmond & New Paris Stone Quarry Co	New Paris
Danily & Hutton	
I. J. Weaver	Lewisburgh
F. J. Wilson	• (
A. C. Miller	Euphemia
John A. Elliott	Eaton
Nathan C. Sloan	Morning Sun
John W. Berry	Hamilton
James White	Camden
Peter Foutz	44
Eliott Bros	Fair Haven
G. W. Mann.	Morning Sun
Jas. Caroli	Euphemia
PUTNAM COUNTY.	
John Bridenbaugh	Pandora
Guffey & Swisher	Rimer
Sackett & Ord	Ottawa
Alex, Hirschburgher	
T. W. Thomas D. P. Rimer	Rymer
Dickman & Bertling	Ft. Jennings
Stuter & Yacklen	Ottoville
J. B. Harmon	Gilboa
Alspach & Pohlmann	Delphos
John Diller	Pandora
Samuel Myers	Cascade Ft. Jennings
Jesse Davey	Pandora
SANDUSKY COUNTY.	
B. Saner	Fremont
William Creech	Bellevue
Gottron Bros	Fremont
Dohn Limestone Co	Gibsonburgh
Zorn, Horning & Co	(i
H. Rankamp	Toledo
Chris. Hebler	Woodville
Jacob B. King	Fremont

## EXECUTIVE DOCUMENTS.

Name of firm.	Postoffice address.
SENECA COUNTY.	
E. H. France	Bloomville
Koller & Keiger	"
Henry Dryfuse	. "
Doherty & Co	Toledo
D. L. Fisher & Son	Bloomville
T. B. McManigal	Tiffin
Eureka White Lime Co	
F. Morcher	
Weot Bros	
L. Schowder	
L. McCullum & Co	"
I. I. Rumsev & Co.	Fostoria
j. J. Kumbey & Comming of the committee	
SHELBY COUNTY.	
Wm. Etherington & Sons	Sidney
Sidney Lime Co	Sidney "
Frank Dean	"
Liane Dean	
STARK COUNTY	
L. C. Dine	Louisville
Wm. Schweitzer	
Wm. B. Warstler	Oral City
I. B. Druckenbrod	Middlemarch
Jas. Clapsaddle	
Rev. J. H. Harrier	North Industry
SCIOTO COUNTY.	_
Walker E. Marsh	
Clare Iron Co	Bloom Switch
UNION COUNTY.	
C. H. Seeley	Tanama
C. H. Seeley	Jerome
VAN WERT COUNTY.	
Dr. L. E. Sadd	Middlepoint
Ireland, Manship & Ridenour	" "
G. B. Holland & Co	Groverville
E. H. France	Bloomville
Wm. J. Semple	Van Wert
L. B. Leslie	Convoy
I. B. Carey	Scotts

#### INSPECTOR OF MINES.

Name of firm.	Postoffice address.
WOOD COUNTY.	
M. Eishen Dougherty & Co N. B. Eddy & Co Lime City Co Wm. Jones Sugar Ridge Stone & Lime Co Snowflake Lime Co Fostoria Lime & Stone Co D. P. Lloyd & Co J. B. Luckey Isaac Hufford Michigan Stone & Supply Co L. Strayer Lee Klopfenstein Geo. E. Mercer	Luckey Toledo Bowling Green Sugar Ridge Bowling Green Fostoria Stony Ridge
WYANDOT COUNTY.	
G. H. Whaley M. B. Smith Wm. Lanker J. H. Black S. R. Howser S. C. Shoup	Carey Findlay

## MINING LAWS

OF THE

# STATE OF OHIO,

WITH

LATEST AMENDMENTS.

Published by

ROBERT M. HASELTINE,

Chief Inspector of Mines.

# Mining Laws of Ohio.

#### INSPECTOR OF MINES.

SEC. 290. For the purpose of facilitating an efficient and thorough inspection of mines in Ohio, and to provide an adequate inspecting force therefor, the governor shall appoint by and with the consent of the senate, one chief inspector, who, with the approval of the governor, shall appoint five district inspectors of mines; the chief inspector shall hold his office for the term of four years and the district inspectors shall hold their office for the term of three years from the date of their appointment, and until their successors are appointed and qualified; the first appointments hereunder shall be made within thirty days from the date when this act shall take effect; and in case of the resignation, removal or death of the chief inspector, or any district inspector, the vacancy shall be filled in the manner above provided for original apppointments for the unexpire term only, of the position so made vacant. No person shall be appointed chief inspector of mines unless he is possessed of a competent knowledge of chemistry, the geology of Ohio. and mineralogy, in so far as those sciences relate to mining, and has a practical knowledge of mining, engineering, and the different systems of working and ventilating mines, and the nature and properties of the noxous and poisonous gases of mines, particularly fire damy, and of the best means of preventing and removing the same; and no person shall be appointed district inspector of mines unless he be a practical miner of at least five years' experience, and a resident of the district for which he is appointed, for at least two years, and is possessed of a practical knowledge of the best mode of working and ventilating mines, of the means of detecting the presence of bad or foul air, noxious and poisonous gases, and of the best means of preventing and removing the same.

SEC. 290a. That authority be and is hereby given to appoint two additional district inspectors of mines; and they district in shall be appointed in the same manner and possess the same spectors. qualifications and receive the same compensation as the five district inspectors of mines authorized by said Sec. 290. The term of office of the two district inspectors of mines herein provided for shall be three years, and they shall take an oath and give bond, as provided in sec. 291 of the Revised Statutes of Ohio, and shall be subject to the regulations and requirements of the district inspectors authorized in said sec. 290, as provided in chapter nine of the Revised Statutes of Ohio. The chief inspector of mines shall assign bigitized by

Additional

said additional inspectors for service in districts to be designated by him, and he is authorized to divide the state in seven districts, in each of which one of the district inspectors of mines shall reside.

Bond and oath.

SEC. 291. Before entering upon the discharge of the duties of their respective offices, the chief inspector and district inspectors shall give bond to the state, the former in the sum of five thousand dollars, and the latter in the sum of two thousand dollars each, to be approved by the governor, conditioned for the faithful performance of their duties, respectively; said bonds, with an oath of office on each, and approval of the governor indorsed thereon, shall be forthwith deposited with the secretary of state; the inspectors, while in office, shall not act as agent, manager or mining engineer for any operator, or in any way be interested in operating any mine.

Their powers and duties.

SEC. 292. The chief inspector and district inspectors shall give their whole time and attention to the duties of their offices, respectively; it shall be the duty of the district inspectors to examine all the mines in their respective districts as often as possible, to see that all the provisions and requirements of this chapter are strictly observed and carried out; they shall particularly examine the works and machinery belonging to any mine, examine into the state and condition of the mines as to ventilation, circulation and condition of air, drainage and general security; they shall make a record of all examinations of mines in their respective districts, showing the date when made, the condition in which the mines are found, the extent to which the laws relating to mines and mining are observed or violated, the progress made in the improvement and security of life and health sought to be secured by the provisions of this chapter, number of accidents, injuries received, or deaths in or about the mines, the number of mines in their respective districts, the number of persons employed in or about each mine, together with all such other facts and information of public interest concerning the condition of mines, development and progress of mining in their respective districts, as they may think useful and proper, which record shall, on or before the first Monday of every month, be filed in the office of the chief inspector, to be by him recorded, and so much thereof as may be of public interest, to be included in his annual report; in case of any controversy or disagreement between the district inspector and the owner and [or?] operator of any mine, or the persons working therein, or in case of conditions of emergencies requiring counsel, the district inspector may call on the chief inspector for such assistance and counsel as may be necessary; should the district inspector find any of the provisions of this chapter violated or not complied with, by any owner, lessee, or agent in charge of any mine, he shall immediately notify such owner, lessee, or agent in charge, of such neglect or violation, and unless the same is, within a reasonable time, rectified, and the provisions of this chapter fully complied with, he shall insti-

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ute a prosecution under the provisions of section six thousand eight hundred and seventy-one (6871) of the Revised Statutes. The inspectors shall exercise a sound discretion in the enforcement of the provisions of this act, and if in any respect (which is not provided against by, or may result from a rigid enforcement of any express provisions of this chapter), the inspector find any matter, thing or practice in or connected with any such mine, to be dangerous or defective, so as, in his opinion, to threaten or tend to the bodily injury of any person, the inspector may give notice in writing thereof to the owner, agent or manager of the mine, and shall state in such notice the particulars in which he considers such mine, or any part thereof, or any matter, thing of [or?] practice to be dangerous or defective, and require the same to be remedied. For the purpose of making the inspection and examinations provided for in this section, the chief inspetor and the district inspectors shall have the right to enter any mine at all reasonable times, by night or by day, but in such manner as shall not unnecessarily obstruct the working of the mine; and the owner or agent of such mine is hereby required to furnish the means necessary for such entry and inspection; the inspection and examination herein provided for shall extend to fire clay, iron ore and other mines, as well as coal mines.

SEC. 293. The chief inspector shall designate the Districts, how counties or portions thereof in the state which shall compose the different districts, and may at any time change the same, when in his judgment the best interests of the service may require, and shall issue such instructions, make such rules and regulations for the government of the district inspectors, not inconsistent with the powers and duties vested in them by law, as shall secure uniformity of action and proceedings throughout the different districts; and he may Power of other order one district inspector to the assistance of any other over district inspectors. district inspector, or make temporary transfers of district inspectors, when, in his judgment, the efficiency or necessity of the service demands or permits, and he may, with the consent of the governor, remove any district inspector at pleasure; the district inspectors are hereby invested with Their powers all the powers and authority of county auditors, as sealers weights and of weights and measures in the different counties of this measures. state, and for any service performed as such sealers they shall receive the same compensation as now provided by section ten hundred and sixty-two (1062) of the Revised Statutes; but said inspector shall exercise said authority in connection with weights and measures only at mines in special duties their respective districts; the chief inspector shall render of other inspector. such personal assistance to the district inspectors, as they, from time to time, may require, and shall make such personal inspection of the mines as he may deem necessary, and his other duties will permit; he shall keep in his office and carefully preserve all maps, surveys and other reports and papers required by law to be filed with him, and so arrange and preserve the same as shall make them a per-

Rules for district inspect-



His reports.

Mining operators to make certain report to him.

Penalty for their failure to make such reports.

Masters to be included in report of chief inspector.

Maps, plans of mines, etc., shall be kept in offices.

Salaries.

manent record of ready, convenient and connected reference; he shall compile and consolidate the reports of district inspectors, and annually make report to the governor of all his proceedings, as well as those of the district inspectors, the condition and operation of the different mines of the state, and the number of mines and the number of persons employed in or about such mines, the amount of coal, iron ore, limestone, fire clay, or other mineral mined in the state; and for the purpose of enabling him to make such report, the owner, lessee or agent in charge of such mine, who is engaged in mining, and the owner, lessee or agent of any firm, company or corporation in charge of any fire clay, or iron ore mined [mine?] or any limestone, or quarry, or who is engaged in mining or producing any mineral whatsoever in this state, shall, on or before the 31st day of January in every year, send to the office of the chief inspector of mines, upon blanks furnished by him, a correct return specifying with respect to the year ending on the preceding 31st day of December, the quantity of coal, iron ore, fire clay, limestone, or other mineral product in such mine or quarry, and the number of persons ordinarily employed in or about such mine, or quarry, below and above ground, distinguishing the persons and labor below ground and above ground. Every owner, lessee or agent of a mine or quarry who fails to comply with this section, or makes any return which to his knowledge is false in any particular, shall be deemed guilty of an offense against this section, and shall be fined one hundred dollars, to be recovered at the suit of the chief inspector in the name of the state of Ohio; he shall also include in such report such facts relative to the mineral resources of the state and the development of the same, as shall, in his judgment, be of public interest; he shall enumerate all accidents, and the manner in which they occurred, in or about the mines, and give all such other information as he thinks useful and proper, and make such suggestions as he deems important, relative to mines and mining, and any other legislation that may be necessary on the subject for the better preservation of the life and health. of those engaged in such industry.

SEC. 294. The chief inspector shall have an office in the state house, in which shall be carefully kept the maps and plans of all mines in the state, and all records, correspondence, papers, and apparatus and property pretaining to his duties, belonging to the state, and shall be handed over to his successor in office; the district inspectors shall keep their offices in such place in their respective districts as will be most central and convenient to the mining region of their respective districts, and shall keep and preserve in their offices all maps, plans, surveys, and other papers belonging to their offices, in such manner as shall be of easy access and convenient reference to persons entitled to examine them. The district inspectors shall receive an annual salary of twelve hundred dollars (\$1200) per annum, and the chief inspector shall receive the same salary as is now provided for inspector of mines under section twelve hundred and eighty-four of the Revised Statutes.

SEC. 295. There shall be provided for the inspectors Instruments, weights and measures and all instruments and chemical nished inspector tests necessary for the discharge of their respectives duties ors. under this chapter, which shall be paid for on the certificate of the chief inspector, from his contingent fund, and shall belong to the state.

SEC. 296.

excavation of not less than fifteen thousand cubic yards, furnish a map shall make, or cause to be made, an accurate map or plan of of his mine, the working of such mine on a scale of not less than two hundred feet to the inch, showing the area mined or excavated, and the location and connection with such excavation of the mine of the lines of all adjoining lands, and the name or names of each owner or owners, so far as known, marked on each tract, and the owner or agent shall annually thereafter make, or cause to be made, an addition to said map, Inspector to showing the progress and plan of the working of such mine be made. during the previous year up to the date of survey; provided, that said additions shall be made semi-annually whenever the mine inspector deems it necessary and so directs. map shall be kept at the office of such mine, and open to the inspection of the mine inspector, or his assistants, at all reasonable times, and at the request of the inspector the owner or agent shall file a correct copy of such map with said mine inspector at Columbus, and in case of refusal on the part of the owner or agent to make and file such map, the inspector is authorized and required hereby to cause such map or maps to be made in duplicate, at the expense of said owner or agent, the cost of which shall be recoverable against the owner or agent in the name of the state mine inspector; and in case of refusal by said owner or agent to make, or cause such map and the additions thereto to be made, for sixty days after notice by the mine inspector, said agent or owner shall be liable to a fine of five dollars for each and every day until said map is made, which shall be collected in the name of the state of Ohio, at the suit of

the state mine inspector, and the amount so recovered shall be paid into the township school fund of the township when collected. And when any mine is exhausted or aban-

the mine, the owner or agent thereof shall cause to be made a correct map of such mine, showing the area and working of the same to the day of abandoning, or of drawing pillars for the purpose of abandoning, and file such map within ninety days thereafter at the office of the county recorder in the county where such mine is located; said map shall have attached thereto the sworn certificate of the mining engineer making the map, and of the mine boss in charge of the underground workings of said mine; such map shall be properly labeled and filed by the recorder, and be preserved as a part of the records of the land on which such mines are

The owner or agent of any mine having an Owner of a

Maps of aban doned, and before the pillars are drawn in any portion of doned mines to be made.



located, and the recorder shall receive for said filing from said owner or agent a fee of fifty cents.

Outlets required.

SEC. 297. It is unlawful for the owner or agent of any coal mine, worked by shaft, to employ or permit any person to work therein, unless there are, to every seam of coal worked in each mine, at least two separate outlets, separated by natural strata of not less than one hundred feet in breadth, by which shafts or outlets distinct means of ingress and egress are always available to the persons employed in the mine; but it is not necessary for the two outlets to belong to the same mine if the persons employed therein have safe, ready and available means of ingress and egress by not less than two openings. This section shall not apply to opening a new mine while being worked for the purpose of making communication between said two outlets so long as not more than twenty persons are employed at any one time in such mine, neither shall it apply to any mine or part of a mine in which the second outlet has been rendered unavailable by reason of the final tobbing of pillars previous to abandonment, so long as not more than twenty persons are employed therein at any one time. The cage or cages, and other means of egress shall at all times be available for the persons employed, where there is no second outlet. The escapement shafts shall be fitted with safe and available appliances, by which the persons employed in the mine may readily escape in case an accident occurs deranging the hoisting machinery at the main outlets, and such means or appliances for escape shall always be kept in a safe condition; and in no case shall an air shaft, with a ventilating furnace at the bottom, be construed to be an escapement shaft, within the meaning of this section. all other coal mines, whether slopes or drifts, two such openings or outlets must be provided within twelve months after shipments of coal have commenced from such mine; and in case such outlets are not provided as herein stipulated, it shall not be lawful for the agent or owner of such slope or drift to permit more than ten persons to work therein at any one time. In case a coal mine has but one shaft, slope or drift, for the ingress or egress of the men working therein, and the owner thereof does not own suitable surface ground for another opening, he may select and appropriate any adjoining land for that purpose, and may make an additional shaft or outlet under, through or upon any intervening land, or landing adjoining, and shall be governed in his proceeding in appropriating such land by the provisions of law in force, providing for the appropriation of private property by corporations, and such appropriation may be made, whether he is a corporator or not; but no land shall be appropriated under the provisions of this chapter until the court is satisfied that suitable premises can not be obtained upon reasonable terms.

Ventilation.

SEC. 298. The owner or agent of every coal mine, whether shaft, slope, or drift, shall provide and maintain for every such mine an amount of ventilation of not less

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than 100 cubic feet, per minute, per person employed in such mine, which shall be circulated and distributed throughout the mine in such a manner as to dilute, render harmless and expel the poisonous and noxious gases from each and every working place in the mine, and no working place shall be driven more than sixty feet in advance of a breakthrough, or air-way; and all breakthronghs, or airways, except those last made near the working faces of the mine, shall be closed up and made air-tight, by brattice, trap doors, or otherwise, so that the currents of air in circulation in the mine may sweep to the interior of the mine, where the persons employed in such mine are at work, and all mines governed by the statutes shall be provided with artificial means of producing ventilation, such as forcing, or suction fans, exhaust steam, furnaces or other contrivances, of such capacity and power as to produce and maintain an abundant supply of air, and all mines generating fire-damp shall be kept free from standing gas and every working place shall be carefully examined every morning with a safety lamp, by a competent person or persons, before any of the workmen are allowed to enter the mine. All underground entrances to any places not in actual course of working or extension shall be properly feuced across the whole width of such entrances so as to prevent persons from inadvertently entering the same.

SEC. 299. The owner or agent of every coal mine safety appa-operated by shaft, in all cases where the human voice can ratus and pre-cautions. not be distinctly heard, shall forthwith provide and maintain a metal tube from the top to the bottom of such shaft, suitably calculated for the free passage of sound therein, so that conversation may be held between persons at the bottom and top of the shaft; there shall also be provided an approved safety-catch, and a sufficient cover overhead, on all carriages used for lowering and hoisting persons, and in the top of every shaft an approved safety-gate, and an adequate brake shall be attached to every drum or machine used for lowering or raising persons in all shafts or slopes; and there shall also be provided in every shaft a traveling or passage way from one side of a shaft bottom to the other, so that persons working therein may not have to pass under descending cages; and all slopes or engine planes, used as traveling ways by persons in any mine, shall be made of sufficient width to permit persons to pass moving cars with safety; but if found impracticable to make any slope or engine plane of sufficient width, then safety holes of ample dimensions, and not more than sixty feet apart, shall be made on one side of said slope or engine plane. Such safety holes shall always be kept free from obstructions, and the roof and the sides shall be made The boilers used for generating steam, and the Bollers. buildings containing the boilers shall not be nearer than sixty feet to any shaft or slope, or to any building or inflammable structure connecting with or surrounding said shaft or solpe; but this section shall not apply to any shaft



or slope until the work of development and shipment of coal has commenced.

Competent engineers must be employed, etc.

Lighting and ventilation.

Notice of ac-cidents.

Duty of inspectors.

SEC. 300. No owner or agent of any coal mine operated by a shaft or slope shall place in charge of any engine used for lowering into or hoisting out of such mine persons employed therein, any but experienced, competent and sober engineers; and no engineer in charge of such engine shall allow any person, except such as may be deputed for that purpose, by the owner or agent, to interfere with it or any part of the machinery, and no person shall interfere or in any way intimidate the engineer in the discharge of his duties; and in no case shall more than ten men ride on any cage or car at one time, and no person shall ride upon a loaded cage or car in any shaft or slope

SEC. 301 All safety lamps used for examining coal mines, or which are used in any coal mine, shall be the property of the owner of the mine, and shall be under the charge of the agent thereof, and in all mines, whether they generate fire-damp or not, the doors use [d] in assisting or directing ventilation of the mine, shall be so hung or adjusted that they will shut of their own accord and can not stand open; and all main doors shall have an attendant, whose constant duty shall be to open them for transportation and travel, and prevent them from standing open longer than is necessary for persons or cars to pass through; and the mining boss shall keep a careful watch over the ventilating apparatus and the air-way, and he shall measure the ventilation at least once a week, at the inlet and outlet, and also at or near the face of all the entries, and the measurements of air so made shall be noted on blanks, furnished by the chief inspector; and on the first day of each month the mining boss of each mine shall sign one of such blanks, properly filled with the said actual measurements, and forward the same to the chief inspector, and any mining boss making false returns of such air measurements shall be deemed guilty of an offense against this section. Every person having charge of any mine, whenever loss of life occurs by accident, connected with the working of such mine, or by explosion, shall give notice thereof forthwith, by mail or otherwise, to the inspector of mines, and to the coroner of the county in which such mine is situated, and the coroner shall hold an inquest upon the body of the person or persons whose death has been caused, and inquire carefully into the cause thereof, and shall return a copy of the findings and all the testimony to the chief inspector. owner, agent, or manager of every mine shall within twentyfour hours next after any accident or explosion, whereby loss of life or personal injury may have been occasioned, send notice in writing to the chief inspector, and shall specify in such notice the character and cause of the accident, and the name or names of the persons killed and injured, with the extent and nature of the injuries sustained. When any personal injury, of which notice is required to be sent under this section, results in the death of the person injured, notice in writing shall be sent to the chief inspector within twenty-four hours after such death comes to the knowledge of the owner, agent or manager; and when loss of life occurs in any mine by explosion, or accident, the owner, agent, or manager of such mine, shall notify the chief inspector, or the district inspector forthwith, of the fact, and it shall be the duty of the chief inspector to go himself, or require one of the district inspectors to go, at once to the mine in which said death occurred, and inquire into the cause of the same, and to make a written report, fully setting forth the condition of the part of the mine where such death occurred, and the cause which led to the same; which report shall be filed by the chief inspector in his office as a matter or [ot?] record, and for future reference.

For any injury to persons or property, occasioned by Penalty. any violation of this act, or any willful failure to comply with its provisions by any owner, agent or manager of any mine, a right of action shall accrue to the party injured, for any direct damage he may have sustained thereby; and, in any case of loss of life, by reason of such willful neglect or failure, aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they have sustained.

The owner, agent or manager of any mine shall also Other notices give notice to the chief inspector of mines in any or all of to be given chief inspector the following cases:

Where any change occurs in the name of any mine, or in the name of any owner, agent, or manager of any mine, or in the officers of any incorporated company which owns or operates a mine.

2. Where any working is commenced for the purpose of opening a new shaft, slope or mine, to which this act applies.

Where any mine is abandoned or the working thereof discontinued.

4. Where the working of any mine is recommenced after any abandonment or discontinuance for a period exceeding three months.

5. Where the pillars of a mine are about to be removed or robbed.

6. Where a squeeze or crush, or any other cause or change may seem to affect the safety of persons employed in any mine, or where fire occurs, or a dangerous body of gas is found in any mine.

SEC. 302. No boy under twelve years of age shall be Employment allowed to work in any mine, nor any minor between the ages of miners. of twelve and sixteen years unless he can read and write; and in all cases of miners applying for work the agent of such mine shall see that the provisions of this section are not violated; and the mine inspector may, where doubt exists as to the age of any minors found working in any mine, qualify the said minor or his parents as to his age.



Action for non-compliance with statutes.

SEC. 303. In case any coal mine does not, in appliances for the safety of the persons working therein, conform to the provisions of this chapter, or the owner or agent disregards the requirements of this chapter, any court of competent jurisdiction may, on application of the inspector, by civil action in the name of the state, enjoin or restrain the owner or agent from working or operating such mine until it is made to conform to the provisions of this chapter; and such remedy shall be cumulative, and shall not take the place of or affect any other proceedings against such owner or agent authorized by law for the matter complained of in such action.

When gov-ernor shall convene a board of examiners.

Duties of the board.

Right of ac cess to mines,

When written charges of gross neglect of Sec. 304. duty or malfeasance in office against any inspector is made and filed with the governor, signed by not less than fifteen coal miners or one or more operator, of mines, together with a bond in the sum of five hundred dollars, payable to the state, and signed by two or more responsible freeholders, and conditioned for the payment of all costs and expenses arising from the investigation of such charges, the governor shall convene a board of examiners, to consist of two practical coal miners, one chemist, one mining engineer and one operator, at such time and place as he deems best, giving ten days' notice to the inspector against whom the charges are made, and also the person whose name appears first in the charges; and the board when so convened, and having been first duly sworn, truly to try and decide the charges made, shall summon any witnesses so desired by either party, and examine them on oath, which may be administered by any member of the board, and depositions may be read on such examination, as in other cases; and the board shall examine fully into the truth of such charges, and report the result of their investigation to the governor; and the board shall award the costs and expenses of such investigation against the inspectors or the persons signing the bond according to their finding, against said inspector or in his favor, which costs and expenses shall include the compensation of such board, of five dollars per day for each member, for the time occupied in the trial and in traveling from and to their homes; and the attorney general shall forthwith proceed to collect such costs and expenses, and pay the same, into the state treasury, being in the first instance paid out of the state treasury on the certificate of the president of such board.

SEC. 305. In all coal mines in the state the miners employed and working therein, the owners of the land or other persons interested in the rental or royalty of any such mine, shall at all proper times have full right of access and examination of all scales, machinery or apparatus used in or about such mine to determine the quantity of coal mined, for the purpose of testing the accuracy and correctness of all such scales, machinery or apparatus; and such miners, landowners or other persons may designate or appoint a competent person to act for them, who shall at all proper

times have full right of access and examination of such scales. machinery or apparatus, and seeing all weights and measures of coal mined, and the accounts kept of the same; but not more than one person on behalf of the miners collectively, or one person on behalf of the landowners or other persons interested in the rental or royalty jointly, shall have such Miners to apright of access, examination and inspection of scales, weights, measures and accounts at the same time, and that such spect min person shall make no unnecessary interference with the use ery eto of such scales, machinery or apparatus; and the miners employed in any mine may, from time to time, appoint two of their number to act as a committee to inspect, not oftener than once in every month, the mine and the machinery connected therewith, and to measure the ventilating current, and if the owner, agent or manager so desires, he may accompany said committee by himself or two or more persons which he may appoint for that purpose; the owner, agent or manager shall afford every necessary facility for making such inspection and measurement, but the committee shall not in any way interrupt or impede the work going on in the mine at the time of such inspection and measurement, and said committee shall, within ten days after such inspection. report to the inspector. tion and measurement, make a correct report thereof to the inspector of mines, on blanks to be furnished by said inspector for that purpose; and if such committee make to the inspector a false or untrue report of the mines, such act shall constitute a violation of this section.

SEC 306. Only a pure animal or vegetable oil, or other oil as free from smoke as a pure animal or vegetable oil, and not the product or by-product of rosin, and which shall, on inspection, comply with the following test, shall be used for illuminating purposes in the mines of this state: All such oil must be tested at sixty degrees Fahrenheit. The specific gravity of the oil must not exceed twenty-four degrees Tagliabue. The test of oil must be made in a glass jar one and five-tenths inches in diameter by seven inches in depth. If the oil to be tested is below forty-five degrees Fahrenheit in temperature, it must be heated until it reaches about eighty degrees Fahrenheit; and should the oil be above fortyfive degrees and below sixty degrees Fahrenheit it must be raised to a temperature of about seventy degrees Fahrenheit, when, after being well shaken, it should be allowed to cool gradually to a temperature of sixty degrees Fahrenheit, before finally being tested. In testing the gravity of the oil, the Tagliabue hydrometer must be, when possible, read from below, and the last line which appears under the surface of the oil shall be regarded as the true reading. In case the oil under test should be opaque or turbid, one-half of the capillary attraction shall be deemed and taken to be the true reading. Where the oil is tested under difficult circumstances, an allowance of one-half degree may be made for possible error in parallax before condemning the oil for use in the mine. All oil sold to be used for illuminating purposes in the mines of this state, shall be contained in barrels or



packages branded conspicuously with the name of the dealer, the specific gravity of the oil, and the date of shipment.

SECTION 2. That section 306 be supplemented by the enactment of the following section, numbered as indicated:

SEC. 306a. Any person or persons, firm or corporation, which ships any oil contained in any barrel or barrels, package or packages, which are not branded as prescribed in section 306 said oil to be used for illuminating purposes in coal or any other mines, and any person or persons, firm or corporation which sells any oil other than that prescribed in section 306, to be used for illuminating purposes in coal or other mines, and any person or persons, firm or corporation, having in charge the operation or running of any mine, which, in a mine under his or its charge uses or permits the use of any oil other than that prescribed in section 306, and any miner or mine employe who uses, with a knowledge of its character, in any mine in this state, any oil other than that prescribed in section 306, shall be fined not less than five nor more than fifty dollars; and any individual, firm, company or corporation which sells any oil other than that prescribed in section 306, in a quantity exceeding five barrels at one sale, to be used for illuminating purposes in coal or other mines, shall be fined not less than twenty-five nor more than one-hundred dollars.. Mayors and justices of the peace shall have jurisdiction to try any violations of this section, and their judgment shall be final. Every person who, after being once convicted of violating this section, shall be convicted o again violating any of the provisions of this section, may, in addition to the fine before provided, be imprisoned not less than ten days nor more than thirty days. On complaint, before a mayor or justice of the peace, of a second violation of this act involving the punishment of imprisonment, if a trial by jury be not waived, a jury shall be chosen and the case tried, after the manner provided in section 3718a of the Revised Statutes. All fines assessed and collected under prosecutions begun, or caused to be begun by the chief inspector of mines, or any district inspector of mines, shall be paid by the court to the chief inspector of mines, and by him paid into the state treasury to the credit of a fund which is hereby appropriated for the use of the chief inspector of mines in prosecuting violations of this section. Any excess of fines collected over the expenses incurred in prosecutions under this section remaining at the close of the fiscal year, shall be credited to the general revenue fund of the state.

SEC. 3. Section 306, as amended March 29, 1892, (89 O. L., 164), is hereby repealed, and this act shall take effect and be in force from and after its passage.

SEC. 6871. Whoever knowingly violates any of the provisions of sections two hundred and ninety-seven, two hundred and ninety-eight, two hundred and ninety-nine, three hundred, three hundred and one, three hundred and two, and three hundred and five, or does any act whereby

Mines; penalty for injuring. the life or health of the person, or the security of any mine and machinery are endangered; or any miner or other person employed in any mine governed by the statute, who intentionally and willfuly neglects or refuses to securely prop the roof of any working place under his control; or neglects or refuses to obey any order given by the superintendent of a mine in relation to the security of the mine in the part thereof where he is at work, or for fifteen feet back from the face of his working place; or any miner, workman, or other person who shall knowingly injure any water-gauge, barometer, air-course or brattice, or shall obstruct or throw open any air-ways, or shall handle or disturb any part of the machinery of the hoisting engine, or open a door of the mine and not have the same closed again, whereby danger is produced either to the mine or those that work therein; or who shall enter any part of the mine against caution; or who shall disobey any order given in pursuance of this act; or who shall do any wilful act, whereby the lives and health of persons working in the mine, or the security of the mine, or the machinery thereof, is endangered; or any person having charge of a mine, whenever loss of life occurs by accident, connected with the working of such mine, or by explosion, who neglects or refuses to give notice thereof forthwith, by mail or otherwise, to the chief inspector of mines, and to the coroner of the county in which such mine is situate; or any such coroner who neglects or refuses to hold an inquest upon the body of a person whose death has been thus caused, and return a copy of his findings and all the testimony to the inspector, shall be fined not less than fifty dollars, or imprisoned in the county jail not more than thirty days, or both. The owner, agent, or operator of every timber. coal mine shall keep a supply of timber constantly on hand, and shall deliver the same to the working place of the miner, and no miner shall be held responsible for accidents which may occur in mines where the provisions of this section have not been complied with by the owner, agent, or operator thereof.

Section 2. Section 6871, as amended April 11, 1888, be and the same is hereby repealed.

#### AN ACT

Supplementary to section 3184 of the Revised Statutes, as amended March 22, 1891, to be sectionally numbered 3184a.

SEC. 3184a. Any person who performs labor in mining Lien upon coal, or removing the same from the mines, or other manual labor. labor connected therewith, for any coal or mining company owning, operating or leasing coal mines within this state, by virtue of a contract with the owner, owners, or his or their authorized agent, shall have a lien to secure the payment for the same upon the mine or mines of such company and upon all the rights of the company or corporation

owning or leasing such mines, and upon all the personal property of any such company or corporation used in conducting their business of mining coal, whether the same be located at or near the mines or elsewhere.

Passed March 27, 1889.

#### AN ACT

"To permit mine and quarry operators to cross roads," passed February 17, 1893.

Conditions upon which mine and quarry operators permitted to undermine or cross public roads.

SECTION 1. That any individual, partnership or corporation in Ohio, who may now or hereafter own any land or any interest either in fee or otherwise, containing any coal, clay or stone, and over any portion of which shall pass any state, county or township road or public highway, with the consent of the board of county commissioners in case of state or county roads, or township trustees in case of township roads, shall have and are hereby authorized to excavate, mine, quarry through or under any such road; provided, however, that before said work shall be commenced, said individual, partnership or corporation shall execute and deliver to the board of county commissioners of any such county, a bond with good and sufficient surety, in such an amount as shall be by said board considered sufficient to cover all damages that may accrue by reason of excavating, mining or quarrying through or under any such road, the same to be approved by said board; conditioned that while crossing over or mining or quarrying under any such road, a. safe and unobstructed passageway or road shall be kept open by such individual, partnership or corporation for public use, and as soon as practicable the said road shall be fully restored to its original safe and passable condition.

How owner
of land a
adjoining
mine may
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SRC. 4374. A person owning land adjoining a mine worked for the production of coal, ore, or other mineral substance, or a person having an interest in such mine, having reason to believe that the protection of his interest in the mine, or in like minerals on his adjoining land, requires it, upon making affidavit to that effect before a justice of the peace or other proper officer, may enter such mine, and have an examination or survey made thereof; but such examination or survey shall not be made until one day's notice thereof is given to the parties in interest, nor at unreasonable times, but in such time and in such manner as will least interfere with the working of the mine, if the same is being operated at the time.

Facilities for such examination. SEC. 4375. When the affidavit has been made and notice given, the person in charge of the mine shall, on the application of the party giving the notice, transport, by the ordinary method in use at such mine for entrance and exit, a surveying party of not more than five persons, furnish to such party a competent guide and supply them with approved safety lamps; and for every person so trans-

ported, he shall be entitled to receive, from the person requesting such survey, the sum of fifty cents, unless the shaft exceeds two hundred and fifty feet in depth, when he shall be entitled to the sum of one dollar for each person, and five dollars per day for the guide.

SEC. 4376. If the parties working or occupying such mine sustain any damage, for which compensation should tained by such examination be made, by reason of such examination or survey having been made at unreasonable times, or in an improper or unwarrantable manner, the person making the same, or causing the same to be made, shall be liable therefor.

SEC. 4377. The parties working or occupying such Penalty for mine shall not hinder or obstruct the examination or sur- hindering such vey, when made at a reasonable time and in a reasonable manner, under a penalty of not less than fifty nor more than five hundred dollars for each offense, to be recovered before a court of competent jurisdiction.

SEC. 4378. The party who makes the application for Action for the survey may, upon the refusal of the owner or person in charge of the mine to comply with the foregoing provisions, tion. recover judgment, as upon default, in a court of competent jurisdiction, against the owner of such mine, in such sum as such party may declare under oath he believes to be justly due him for coal or other mineral belonging to him taken by the owner of such mine without his permission; and the statute of limitations shall not be operative as against such claim; but the demand and refusal to enter such mine shall be first proven to the satisfaction of the court or jury, and the refusal of the person in charge of the mine shall be held to be the refusal of the owner.

SEC. 4379. The provisions of this chapter shall be avail- To whom proable to any person who, on his oath, states that he is the cerning examowner or anthorized agent of any owner of land which he instion availbelieves contains coal or other valuable mineral substance within one mile of such shaft, although it does not adjoin any mine of the owner of such shaft; the affidavit required shall be sufficient if it state that the lands in which the affiant is interested are in the vicinity of such shaft, and not more than one mile distant therefrom; and service upon any owner or superintendent of such shaft shall be sufficient.

examination

examination.

refusal to permit examina-

#### AN ACT

To amend section 1 of an act entitled "An act to compel children under fourteen years of age to attend school a certain length of time each year," of the Revised Statutes of Ohio, passed April 25, 1890.

SEC. 1. Be it enacted by the General Assembly of the tween eight State of Ohio, That section 1 of an act entitled "An act to and fourteen compel children under fourteen years of age to attend school pelled to a certain length of time each year," of the Revised Statutes attend school of Ohio, passed April 25, 1890, be amended so as to read as follows:



SEC. 1. That all parents, guardians and other persons who have care of children shall instruct them, or cause them to be instructed, in reading, spelling, writing, English grammer, geography and arithmetic, and every parent, guardian, or other persons having control and charge of any child between the ages of eight and fourteen years, shall be required to send any such child or children to a public or private school for a period of not less than twenty weeks in city districts, in each school year, commencing September 1, ten weeks of which, at least shall be consecutive, which shall commence within the first four weeks of the first term of the school year; and in special, village and township districts, not less than sixteen weeks in each school year, eight of which shall be consecutive, unless such child or children are excused from such attendance by the superintendent of the public, private or parochial schools in cities, or by authority of the board of education in village, special and township districts, when it shall have been shown to the satisfaction of said superintendent, or said board, that the physical or mental condition of such child or children has been such as to prevent his, her or their attendance at school, or that said child or children are taught at home by some qualified person or persons in such branches as are usually taught in primary schools; and in case the said board or superintendent refuse to grant such excuse from attendance, the parent or guardian of such child or children shall have the right to appeal from the decision of the board to the probate court of the county, on giving a bond, within ten days after such decision, to the approval of said court, to pay all costs made therein, and the decision of said court in the matter shall be final; provided, that all youths between eight and sixteen years of age, not engaged in some regular employment, shall attend school for the full term the schools of the district in which they reside are continued in the school year, unless excused for the reasons named in this section, and if the parents or guardians having legal charge of such youth shall fail to send these youth to school regularly for said full term, or said youth shall absent themselves from school without satisfactory excuse, said parents and guardians and said youth shall be subject to the provisions and penalties of section 8 of this act.

SEC. 2. That no child under the age of fourteen years shall be employed by any person, company or corporation during the school term, and while the public schools are in session, unless the parent, guardian, or other person having care of such child, shall be able to give substantial proof that he or she has fully complied with the requirements of section 1 of this act, or that such child has completed the usual course of primary and grammar grades in some public or private school, and such person, company or corporation shall demand such proof before giving employment to any minor, and shall make a record of said proof given, and shall be required, upon the request of the officer (hereinafter provided for) to allow said officer to examine

Unlawfulto employ children under fourteen years, except under certain conditions. the said record, and also the record as provided for in section 6986aa of the Revised Statutes, and any person, company or corporation employing any child contrary to the provisions of this act shall be liable to a penalty of fifty dollars for each offense, to be recovered in an action for debt in any court, or before any justice of the peace having jurisdiction, and such action shall be brought in the name of the clerk of the board of education.

SEC. 3. That all minors over the age of fourteen, Regarding and under sixteen years, who cannot read and write the English language, shall be required to attend school at least under sixteen one half of each day, or to attend some evening school organized and maintained by the board of education, or to take English. regular private instruction from some person qualified, in the opinion of the superintendent of schools in cities, and the clerk of the board of education in special village and township districts to teach such branches until he or she shall obtain a certificate from the superintendent of schools in cities, and the clerk of the board of education in special village and township districts, certifying that said minor can read at sight and write legibly simple sentences in the English language, and every person, company or corporation having such minor in employment shall be required to exact such school attendance from such minor, and be prepared, upon demand of the hereinbefore mentioned officer, to furnish evidence that such minor does comply with the requirements of this act, and any person, company or corporation failing or neglecting to exact such school attendance from such minors, shall be liable as provided for in section 2 of this act; provided, such person, company or corporation shall not have made provision for the private instruction of such minors.

SEC. 4. That every parent, guardian or other person where ohlidren having charge or control of any child under the age of six-discharged teen who has been discharged from any business in order to ment by reason be afforded an opportunity to receive instructions or school- of this act. ing, shall send such child to some public or private school until such child shall have acquired such instructions as section 3 of this act requires, and in case of failure on the part of said parent, guardian or other person to comply with the provisions of this section and of section 1 of this act, unless such child shall have been excused from such attendance by the superintendent of public schools or the clerk of the board of education in special village and township districts for reasons stated in section 1 of this act, such parent, guardian or other person shall be deemed guilty of a misdemeanor, and shall, on conviction, be liable to a fine of not less than five dollars or not more than twenty dollars for the first offense, not less than twenty for each subsequent offense, or to imprisonment for not less than one month nor more than three. The said fines, when paid, to be added to the public school funds of such school district in which the offense occurs.

SEC. 5. That all children between the ages of seven Habitual and fourteen years who are habitual truants from school, or

fourteen and who cannot read and write

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while in attendance at any public or private school are incorrigible, vicious or immoral in conduct; and all children between said ages, and all minors between the ages of fourteen and sixteen who can not read and write the English language, who absent themselves habitually from school, or who while in attendance at any public or private school are incorrigible, vicious or immoral in conduct, or habitually wander about the streets and public places during school hours, having no business or lawful occupation, shall be deemed juvenile disorderly persons and subject to the provisions of this act.

Truant officers to be employed in certain cities. SEC. 6. That in cities of the first and second class the board of education of said cities shall be required to employ one or more truant officers to assist in the enforcement of this act, said truant officer to be vested with police powers, and shall be authorized to enter factories, workshops, stores, and all other places where children may be employed, and perform such other services as the superintendent of schools or the board of education may deem necessary to the preservation of the merals and good conduct of school children and for the enforcement of this act, and in special village and township districts the board of education shall be required to appoint some constable or other person as truant officer, with same power as said officers have in said cities, and the compensation of such officers shall be fixed by the board of education.

Truant officers to make daily reports.

SEC. 7. That the truant officers shall make daily reports to the superintendent of public schools during the school term in cities, and to the clerk of the board of education as often as the clerk shall require it to be done in special village and township districts, and he shall also keep a record of his transactions, subject to the inspection of the members and officers of the board of education and it shall be the duty of the clerk of the board of education to provide suitable blanks for said truant officer.

Duties of truant officers

SEC. 8. That it shall be the duty of all truant officers to examine into all cases of truancy, when any such come before their notice, or when requested to do so by the superintendent of public schools, or by the board of education, and to warn such truants, their parents or guardians, in writing, of the final consequences of truancy if persisted in. and also to notify the parent, guardian or other person having the charge or control of any child between the ages of eight and fourteen years, that the said child is not attending any school, and to require said parent, guardian or other person to cause the said child to attend some recognized school within five days from said notice, and it shall be the duty of said parent, guardian or other person having the legal charge and control of said child, to cause the attendance of said child at some recognized school; if said parent, guardian or other person having the legal charge and control of said child, shall willfully neglect, fail or refuse to cause said child to attend some recognized school, it shall be the duty of said officers to make, or cause to be made, a com-

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plaint against said parent, guardian or other person having the legal charge or control of such child, in any court of competent jurisdiction in the city, special, village or township district, in which the offense occurred, for such refusal, failure or neglect, and upon conviction thereof said parent, guardian or other person, as the case may be, shall be punished by a fine of not less than five dollars nor more than twenty dollars, or the court may in its discretion, require persons so convicted to give bond in the penal sum of one hundred dollars, with one or more sureties to be approved by said court, conditioned that said persons so convicted shall cause the child or children under his or her legal charge or control to attend some recognized school within five days thereafter, and to remain at said school during the term prescribed by law; provided, that if said parent, guardian or other person in charge of such child shall prove inability to cause said child to attend said recognized school, then said parent, guardian or other person shall be discharged, and said court, upon complaint of said truant officer or other person, that said child is a juvenile disorderly person, as described in section 5 of this act, proceed to hear such complaint, and if said court shall determine that said child is a juvenile disorderly person within the meaning of this act, such child shall be deemed guilty of a misdemeanor, and said court shall thereupon sentence said child to some juvenile reformatory; provided, that no child or children over ten years old shall be sentenced by any court to a county children's home; and that, where in the judgment of the trustees of any such home, it shall be declared by resolution at a regular meeting by them held, that the character of any child thus sentenced and kept at such home is vicious, and so bad as to be detrimental and harmful to the habits and good morals of other children at such home, said trustees are hereby authorized and empowered to remove such child or children to the boys' industrial school at Lancaster, Ohio, or the girls' industrial home at Delaware, Ohio, as the case may be; nor shall such child or children be kept at any such home beyond the period prescribed in section one, or until such child shall arrive at the age of sixteen years, unless sooner discharged by the board of trustees of said reformatory or home. Provided, however, that said sentence may be suspended in the discretion of the court, for such time as the child shall regularly attend school and properly deport himself or herself. It is further provided that if for any cause the parent, guardian or other person having charge of any juvenile disorderly person, as defined in this act, shall fail to cause such juvenile disorderly person to attend said recognized school, then complaint against such juvenile disorderly persons may be made, heard and tried and determined in the same manner as provided for in case the parent pleads inability to cause said juvenile disorderly person to attend said recognized school. \* \*

Proceedings when this act is violated. SEC. 9. That it shall be the duty of officers empowered or appointed under this act to assist in the enforcement thereof, to institute, or cause to be instituted, proceedings against any parent, guardian or other person having legal control or charge of any child, or corporation violating any of the provisions of this act; provided, that this law shall not be operative in any school district where there are not sufficient accommodation to seat children compelled to attend school under the provisions of this act, and that no prosecution shall be instituted against any parent, guardian or other person or child in charge of such, unless they have received due notification from an officer empowered under this act that they are acting in violation of this act.

When this act may be suspended for a time.

SEC. 10. When any truant officer shall discover to his full satisfaction any child under the age of fourteen years, wholly or partially dependent upon his or her own labor for a living, or who shall be the support of others unable to provide for their own sustenance, or when in the judgment of the superintendent of the schools, or of the board of education, it may be necessary for such child to contribute to the support of the family of which he or she is a member, it shall be the duty of said truant officer to report such case to the proper authorities, whose duty it is to look after and care for the poor, and to endeavor to obtain such relief as may release such child from labor for such length of time each year as will be required for compliance with section 1 of this act, but such child shall not be declared a pauper or removed to any infirmary, reformatory or children's home, unless he or she shall willfully neglect to take advantage of the provisions made by said truant officer for his or her relief and instruction, and said truant officer failing to obtain such relief, the superintendent of schools, or the board of education, may make suitable arrangements for the private instruction of such child while so adversely conditioned.

Duty of teachers and principals under this act.

Sec. 11. That it shall be the duty of all principals and teachers of all schools, public and private, to report to the clerk of the board of education of the city, special village or township districts in which schools are situated, the names, ages and residence of all pupils in attendance at their schools, together with such other facts as said clerk may require, in order to facilitate the carrying out of the provisions of this act, and the said clerk shall furnish blanks for said purpose, and said reports shall be made in the last week of September, December, February and April in each year; and it shall be the further duty of said principals and teachers to report to the truant officers, the superintendent of schools or the clerk of the board of education, all cases of truancy or incorrigibility in their respective schools as soon after these offenses shall have been committed as practicable.

When corporations violate this SEC. 12. That when any of the provisions of this act are violated by a corporation, proceedings may be had against any of its officers or agents of said corporation, who in any way participate in, or are cognizant of such violation by the corporation of which they are the officers or the

agents, and said officers or the agents shall be subject to the

same penalties as individuals similarly offending.

SEC. 13. Any person or officer mentioned in this act, Penalty. and designated as having certain duties to perform in the enforcement of any of its provisions, neglecting to perform any such duties, shall be liable to a fine of not less than twenty-five dollars, nor more than fifty dollars for each and every offense; and mayors, justices of the peace and probate judges shall have jurisdiction to try the offenses described in this act, and their judgment shall be final.

SEC. 14. Any provision of statutes in force when this Relating to act takes effect, which conflicts with any provisions of this other statutes. act, shall, to the extent it is inconsistent with the latter, and not otherwise, be held to be superseded by this act. The provisions of this act shall apply to children entitled under existing statutes to attend school at the institution for the education of the blind, and the deaf and dumb. Other provisions of statutes in force, relating to school affairs, shall not be affected by this act, sections 4023, 4024 and 4028 of the Revised Statutes are hereby repealed. Passed April 25, 1890.

#### AN ACT

To authorize the creation and to provide for the operation of tribunals of voluntary arbitration to adjust industrial disputes between employers and employed.

SECTION 1. Be it enacted by the General Assembly of the State of Ohio, That the court of common pleas of each county, or a judge thereof in vacation, shall have the power, and upon the presentation of the petition, or of the agreement hereinafter named, it shall be the duty of said court, or a judge thereof in vacation, to issue, in the form hereinafter named, a license or authority for the establishment within and for each county of tribunals for voluntary arbitration and settlement of trade disputes between employers and employed in the manufacturing, mechanical, or mining industries.

SEC. 2. The said petition or agreement shall be substantially in the form hereinafter given, and the petitions shall be signed by at least forty persons employed as workmen and by four or more separate firms, individuals, or corporations within the county, or by at least four employers, each of whom shall employ at least ten workmen, or by the representative of a firm, corporation, or individual employing not less than forty men in their trade or industry; provided, that at the time the petition is presented, the judge before whom said petition is presented, may, upon motion, require testimony to be taken as to the representative character of said petitioners, and if it appears that the said petitioners do not represent the will of a majority, or at least one-half of each party to the dispute, the license for the

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establishment of the said tribunal may be denied, or may make such other order in this behalf, as to him shall seem fair to both sides.

SEC. 3. If the said petition shall be signed by the requisite number of both employers and workmen, and be in proper form and contain the names of the persons to compose the tribunal, being an equal number of employers and workmen, the judge shall forthwith cause to be issued, a license substantially in the form hereinafter given, authorizing the existence of such tribunal and fixing the time and place of the first meeting thereof, and an entry of the license so granted shall be made upon the journal of the court of common pleas of the county in which the petition originated.

SEC. 4. Said tribunal shall continue in existence for one year from the date of the license creating it, and may take jurisdiction of any dispute between employers and workmen, in any mechanical, manufacturing, or mining industry or business, who shall have petitioned for the tribunal, or have been represented in the petition therefor, or who may submit their disputes in writing to such tribunal for decision. Vacancies occurring in the membership of the tribunal shall be filled by the judge or court that licensed said tribunal, from three names presented by the members of the tribunal remaining of that class in which the vacancies occur. The removal of any member to an adjoining county shall not cause a vacancy in either the tribunal or the post of umpire. Disputes occurring in one county may be referred to a tribunal already existing in an adjoining county.

The place of umpire in any of said tribunals and vacancies occurring in such place, shall only be filled by the mutual choice of the whole of the representatives of both employers and workmen constituting the tribunal, immediately upon the organization of the same. The umpire shall be called upon to act after disagreement is manifested in the tribunal by failure during three meetings held and full discussion had. His award shall be final and conclusive upon such matters only as are submitted to him in writing and signed by the whole of the members of the tribunal, or by parties submitting the same.

SEC. 5. The said tribunal shall consist of not less than two employers or their representatives and two workmen. The exact number which shall in each case constitute the tribunal shall be inserted in the petition or agreement, and they shall be named in the license issued. The said tribunal, when convened, shall be organized by the selection of one of their number as chairman and one as secretary, who shall be chosen by a majority of the members, or if such majority cannot be had after two votes then by secret ballot, or by lot, as they prefer.

SEC. 6. The members of the tribunal shall receive no compensation for their services from the city or county, but the expenses of the tribunal, other than fuel, light, and the use of the room and furniture, may be paid by voluntary subscription, which the tribunal is authorized to receive and

expend for such purposes. The sessions of such tribunal shall be held at the county seat of the county where the petition for the same was presented, and a room in the court house for the use of said tribunal shall be provided by the county commissioners.

SEC. 7. When no umpire is acting, the chairman of the tribunal shall have power to administer oaths to all witnesses who may be produced, and a majority of said tribunal may provide for the examination and investigation of books, documents and accounts pertaining to the matters in hearing before the tribunal, and belonging to either party to the dispute; provided, that the tribunal may unanimously direct that instead of producing books, papers and accounts before the tribunal an accountant, agreed upon by the entire tribunal, may be appointed to examine such books, papers and accounts, and such accountant shall be sworn to well and truly examine such books, documents and accounts, as may be presented to him, and to report the results of such examination in writing to said tribunal. Before such examination the information desired and required by the tribunal shall be plainly stated in writing and presented to said accountant, which statement shall be signed by the members of said tribunal, or by a majority of each class thereof. Attorneys at law or other agents of either party to the dispute shall not be permitted to appear or take part in any of the proceedings of the tribunal, or before the umpire.

SEC. 8. When the umpire is acting he shall preside, and he shall have all the powers of the chairman of the tribunal; and his determination upon all questions of evidence, or other questions, in conducting the inquiries then pending, shall be final. Committees of the tribunal, consisting of an equal number of each class, may be constituted to examine into any question in dispute between employers and workmen which may have been referred to said committee by the tribunal, and such committee may hear and settle the same finally, when it can be done, by a unanimous vote, otherwise the same shall be reported to the full tribunal, and be there heard, as if the question had not The said tribunal, in connection with the been referred. umpire, shall have power to make, ordain and enforce rules for the government of the body when in session, to enable the business to proceed with in order, and to fix its sessions and adjournments; but such rules shall not conflict with this statute, nor with any of the provisions of the constitution and laws of Ohio.

SEC. 9. Before the umpire shall proceed to act, the question or questions in dispute shall be plainly defined in writing, and signed by the members of the tribunal, or a majority thereof of each class, or by the parties submitting the same; and such writing shall contain the submission of the decision thereof to the umpire by name, and shall provide that his decision thereon, after hearing, shall be final. The umpire shall be sworn to impartially decide all questions that may be submitted to him during his term of

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office. The submission and his award may be made in the form hereinafter given, and said umpire must make his award within ten days from the time the question or questions in dispute are submitted to him. Said award shall be made to the tribunal; and if the award is for a specific sum of money, said award may be made a matter of record by filing a copy thereof in the court of common pleas of the county wherein the tribunal is in session. When so entered of record it shall be final and conclusive, and the proper court may, on motion of any one interested, enter judgment thereon; and when the award is for a specific sum of money, may issue final and other process to enforce the same.

SEC. 10. The form of the joint petition or agreement praying for a tribunal under this act shall be as follows:

To the Court of Common Pleas of———County (or to a judge thereof, as the case may be):

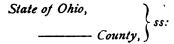
The subscribers hereto, being the number and having the qualifications required in this proceeding, being desirous of establishing a tribunal of voluntary arbitration for the settlement of disputes in the \_\_\_\_\_\_\_ (here name the branch of industry) trade, and having agreed upon A, B, C, D, and E, representing the employers, and G, H, I, J and K, representing the workmen, as members of said tribunal, who each are qualified to act thereon, pray that a license for a tribunal in the \_\_\_\_\_\_ trade may be issued to said persons named above.

Employers.	Names.	Residence.	Works.	No. Employes.
			•	

Employes.	Names.	Residence.	By whom employed.
	I		

SEC. 11. The license to be issued upon such petition may be as follows:

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SEC. 12. When the tribunal agrees to submit a matter in controversy to the umpire, it may be in form as follows:

We, A, B, C, D, and E, representing employers, and G, H, I, J and K, representing workmen, composing a tribunal of voluntary arbitration, hereby submit and refer unto the umpirage of L (the umpire of the tribunal of the trade.) the following subject-matter, namely: [Here state fully and clearly the matter submitted.] And we hereby agree that his decision and determination upon the same shall be binding upon us, and final and conclusive upon the question thus submitted; and we pledge ourselves to abide by and carry out the decision of the umpire when made.

Witness our name this —— day of ——, A. D.—
[Signatures]

SEC. 13. The umpire shall make his award in writing to the tribunal, stating distinctly his decision on the subject-matter submitted. And when the award is for a specific sum of money, the empire shall forward a copy of the same to the clerk of the proper court.

#### AN ACT

To provide against the payment of wages in scrip, orders, etc., and against selling goods or supplies to employes at excessive prices.

SEC. 7015. It shall be unlawful for any person, firm, company, or corporation to sell, give, deliver, or in any manner issue, directly or indirectly, to any person employed by him or it, in payment of wages due for labor, or

as advances on the wages of labor not due, any script, token, draft, check, or other evidence of indebtedness payable or redeemable otherwise than in money; any violations of the provisions of this section shall be punishable by a fine not less than twenty-five nor more than one hundred dollars, or imprisonment of not more than thirty days, or both; and the amount of any scrip, token, check, draft, order, or other evidence of indebtedness, sold, given, delivered, or in any manner issued, in violation of the provisions of this section, shall be recovered in money at the suit of any holder thereof, against the person, firm, company, or corporation selling, giving, delivering, or in any manner issuing the same; and any scrip, token, check, draft, order, or any other evidence of indebtedness issued in violation of the provisions of this section, and presented by the holder thereof, shall be taken as prima facie evidence in any court of the guilt or indebtedness of any person, firm, company or corporation selling, giving, delivering, or in any manner issuing the same, and for the purposes of this act, in case of a firm or corporation, the person selling, giving, delivering, or in any manner issuing said script, token, check, draft, order or other evidence of indebtedness shall be the defendant to the criminal action, and the firm, company or corporation shall be held as the defendant in the civil action. Nothing in this section shall apply or affect the right of any person, firm, company or corporation from giving orders on any store or business house, or firm in the business or profits of which he has no interest, directly or indirectly.

SEC. 7016. Whoever compels, or in any manner seeks. to compel, or attempts to coerce an employe of any person, firm, or corporation to purchase goods or supplies from any particular person, firm or corporation, shall be fined not more than one hundred nor less than twenty dollars, or imprisoned not more than sixty days, or both; and whoever sells goods or supplies of any kind, directly or indirectly, to his employe, or pays the wages of labor of his employes in goods or supplies of any kind, directly, or through the invention of scrip, order, or other evidence of indebtedness, at higher prices than the reasonable or current market value in cash of such goods or supplies, shall be liable to like punishment and penalties above specified, and shall in addition thereto, be liable in civil action to the party aggrieved, in double the amount of any charges made for such goods or supplies in excess of the reasonable or current market value in cash, of such goods or supplies.

SEC. 7017. The prosecuting attorney of any county, upon complaint made to him of any violation of either of the two preceding sections within his county, shall cause such complaint to be investigated before the grand jury.

#### AN ACT

To amend "an act to secure prompt payment of wages of certain employes twice in each month," passed March 21, 1887 (vol. 84, page 214).

SECTION 1. Be it enacted by the General Assembly of the State of Ohio, That the above recited act be so amended as to read as follows:

SEC. 1. That every incorporated manufacturing, mining, mercantile, street-railroad, telegraph, telephone, express, tall emwater company, and construction companies, or contractors month. building railroads, shall pay, in lawful money, or by check, draft or order, payable in lawful money, at sight or on demand, on a bank located at a distance not greater than eight miles from the place where said labor was performed, twice in each month, each and every employe engaged in its business, the wages earned by such employe to within ten days of the date of said payment; provided, however, that if at any time of payment any employe shall be absent from his regular place of labor, he shall be entitled to said payment at any time thereafter, during their regular business hours, upon demand; and provided, further, that said employer may Retention of retain at each payment, any amount said employer may certain amounts. order withheld from his or her wages for rent, powder, tools, tool sharpening, or oil, due said employer.

## [Section 2, as amended March 27, 1889.]

SEC. 2. Any corporation mentioned in section 1 of this act, violating any provisions of this act, shall be punished by a fine not exceeding one hundred and not less than fifty dollars. Justices of the peace, mayors and police judges shall have final jurisdiction in all cases arising under the provisions of this act; and a corporation shall be notified by warrant to be served upon the president, secretary, treasurer, or managing agent thereof; provided, that the defendant shall be entitled, on demand, to a trial by jury. If such prosecution be before a justice of the peace, and a trial by jury be not waived, the said justice shall issue a venire to any constable of the county, containing the names of sixteen electors of the county, to serve as jurors to try such case, and make due return thereof. Each party shall be entitled to two peremptory challenges, and shall be subject to the same challenges as jurors are subject to in criminal cases in the court of common pleas. If the venire of sixteen names be exhausted without obtaining the required number to fill the panel, the justice may direct the constable to summon any of the bystanders to act as jurors; but costs shall not be required to be advanced or paid by a person or an officer authorized or required by statute to prosecute such cases; and if the defendant be acquitted, or if he be convicted, and committed to jail in default of payment of fine and costs, the justice, mayor, or police judge, before whom the case was brought, shall certify such costs to the county auditor, who shall examine, and, if necessary,

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correct the account, and issue his warrant to the county treasurer in favor of the respective officers to whom costs are due for the amount due to each; provided, complaint for such violation is made within thirty days from date thereof; providing that in pursuance of and under this act there shall not be more than one conviction of the same corporation during any two weeks. And it shall be the duty of the inspector of shops and factories, on complaint of three or more employes of such corporation to enforce the provisions of this act.

#### AN ACT

"To establish a school of mines and mine engineering in the Ohio

Ohio State university, establishment of a school of mines.

agricultural and mechanical college."

Course of study; school apparatus,

Section 1. Be it enacted by the General Assembly of the State of Ohio, That the trustees of the Ohio state university be and they are hereby required to establish in said university, a school of mines and mine engineering, in which shall be provided the means for studying scientifically and experimentally the survey, opening, ventilation, care and working of mines; and said school shall be provided with a collection of drawings, illustrating the manner of opening, working and ventilating mines and with the necessary instruments for surveying, measuring air, examining and testing the noxious and poisonous gases of mines, and [also] with [the] models of the most improved machinery for ventilating and operating [all the various kinds of ] mines with safety to the lives and health of those engaged. Said school shall also be provided with complete mining laboratories, for the analysis of coals, ores, fire-clays and other minerals, and with all the necessary apparatus for testing the various coals, ores, fire-clays, oils, gases, and other min-

Employment and duties of instructors.

Sec. 2. Said trustees shall employ competent persons to give instruction in the most improved [and] successful methods of opening, (and operating), surveying and inspecting mines, including the methods and machinery employed for extracting coal, ore, fire-clay, oil, gas and other minerals from the pit's mouth and for facilitating the ascent and descent of workmen, the draining and freeing of mines from water, the causes of the vitiation of air, the quantities of fresh air required under various circumstances, natural ventilation, mechanical ventilation by flues and fans, and other ventilating machinery, the use of air engines, air compressors and coal cutting machinery; also instruction in the various uses of coals, ores, fire-clays, oils, gases and other minerals, and the methods of testing, analyzing and assaying such minerals; also the methods employed in metallurgical and other processes in the reduction of ores and in determining the qualities of metals, particularly iron and

steel, as shown by practical and laboratory tests; and there specimens to be shall be kept in a cabinet properly arranged for ready reference and examination suitably connected with said school of mines [samples of the] specimens from the various mines in the state, which may be sent for analysis, together with the names of the mines and their localities in the counties from which they were sent, and the analysis and a statement of their properties attached; it shall also be his duty to furnish analysis of all minerals found in the state and sent to him for that purpose by residents of this state.

SEC. 3. There is hereby appropriated out of the gen- Appropriation. eral revenue fund the sum of three thousand, five hundred dollars (\$3,500), to be expended in the equipment, support and maintenance of said school of mines, as provided for in the first and second sections of this act.

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Scales tested and mine cars measured  Scale rates machine mining from 1892 to 1897  "pick "  Stark County—  list of mines employing more than ten men  "aless "  firms producing fire clay  quarrying limestone.  Summit County—  list of mines employing more than ten men  "aless "  firms producing fire clay  Scioto County—  list of mines employing more than ten men  "aless "  firms producing fire clay  Scioto County—  list of mines employing more than ten men  "aless "  firms producing fire clay  Tonnage on Lakes, 1896  "aless "  from Pennsylvania  "aless "	16 27 254 255 263 272 256 256 254 254 263 263 272 8 8 8 8 8
Scales tested and mine cars measured  Scale rates machine mining from 1892 to 1897  "pick ""  Stark County—  list of mines employing more than ten men  "less "  "firms producing fire clay  "quarrying limestone  Summit County—  list of mines employing more than ten men  ""less "  "firms producing fire clay  Scioto County—  list of mines employing more than ten men  ""less "  "firms producing fire clay  Scioto County—  list of mines employing more than ten men  ""less "  "firms producing fire clay  ""ress "  "	16 27 254 255 263 272 256 256 254 254 263 263 272 8 8 8 8

		P.	AGE
Tonnage on Lake from 1890 to 1896	3		9
		•••••••••	
•		•••••	
Time worked during 1896			
Trumbull County—			
•	han teu m	en	257
" " less		***************************************	
" firms producing fire clay.			
Tuscarawas County—			
	han ten m	en	257
" "- less			
man producing are only			
	$\mathbf{V}_{-}$		
Ventilation of mines			43
Vinton County—			
	han ten m	en	259
" " less	44		
•		•	
	W		
Washington County—			
list of mines employing more t		en	
" " less	<b>(</b> 1		260
Wayne County—			
list of mines employing more th	han ten m	en	260
" " less	16		

# Twenty-First Annual Report

OF THE

# Board of State Charities

FOR THE

Fiscal Year Ending November 15, 1896.

#### EXECUTIVE DOCUMENTS.

# MEMBERS OF THE BOARD.

(Term of office, three years.)

Names.	Residence.			esent expires	
Asa S. Bushnell, Governor	Columbus	President, ex-officio	<b></b>		
Charles Parrott	Columbus	January 29, 1889	April,	1897	
James L. Wilson	Greenfield	April 22, 1888		1897	
William Howard Neff	Cincinnati	" 23, 1880	"	1898	
Heury C. Ranney	Cleveland	August 10, 1892	"	1899	
Roeliff Brinkerhoff	Mansfield	April 23, 1878	"	1899	
M. D. Follett	Marietta	" 28, 1891	"	1898	
Joseph P. Byers, Clerk	Columbus	Appointed by Board		•••••	

Office: State House.

# Twenty-First Annual Report

OF THE

# Board of State Charities.

Office of the Board of State Charities, November 15, 1896.

To the Seventy second General Assembly of the State of Ohio:

The Board of State Charities herewith submits its Twenty-First Annual Report.

#### STATE INSTITUTIONS.

The year ending November 15, 1896, for our benevolent, penal and reformatory institutions, has been a period of quiet prosperity, and their condition at its close, has never been more satisfactory.

In the report of our Clerk, and the statistical tables herewith transmitted, a detailed statement will be found in regard to both state and county institutions.

#### STATE HOSPITALS.

The total number of insane in the various state hospitals at the close of the year, was six thousand four hundred and one. In the county infirmaries, fourteen hundred and fifty-eight.

The new state hospital at Massillon, when completed, is intended to accommodate twelve hundred patients, and will probably be sufficiently advanced to receive five hundred in 1897.

There are now fourteen hundred and fifty-eight insane in the county infirmaries, so that upon the completion of the Massillon asylum, it is highly probable that additional provision will be necessary if the constitutional requirement of state care for all insane is to be carried out. This requirement however, in the future, can be met at a very moderate expense by the construction of detached buildings on the ground of existing state hospitals, or upon lands near by, to be acquired hereafter. By the colony system, for quiet chronic cases, which has been adopted in several states, buildings costing no more than ordinary farm houses, are found entirely satisfactory. At Salem, Oregon, there is a colony four

miles from the main institution; at Kalamazoo, Michigan, three miles, and at Pontiac, Michigan, one mile. This policy we believe is the best solution of state care for all insane in Ohio. Certainly under such an arrangement state care for chronic cases will cost no more to the taxpayers than county care, and the condition of patients will be vastly improved.

#### INSANE CONVICTS.

The Board of State Charities, at different times in past years, has called attention to the desirability of separate provision for insane convicts.

Heretofore, penitentiary convicts afflicted with insanity, have been kept either within the walls of the prison, where, in the nature of things, no proper medical treatment can be supplied, or else they have been transferred to the central hospital, and kept in association with the ordinary insane.

Insanity does not change the nature of a criminal; or blot out the stigma of his past offenses and to force him into the companionship of those whose lives have been reputable, is not right, and ought not to be tolerated.

In several states, separate provision has been made for the insane convicts, and in New York a separate institution has been provided, not only for insane convicts, but also for patients who have escaped conviction for criminal acts on the plea of insanity, and are known as the criminal insane.

In Ohio we believe, and have heretofore recommended, that all necessary requirements for these two classes of patients, could be provided for most economically by the erection of separate buildings upon the grounds of the central hospital, at Columbus, at a distance from the existing buildings, where insane criminals and the the criminal insane could be kept entirely separate from the ordinary insane, and we renew our recommendation that this be done.

#### CUSTODIAL CARE OF ADULT IDIOTS AND FEEBLE-MINDED.

Almost every year during the past decade we have called attention in our annual reports, to the pressing need of custodial care for the feeble-minded and adult idiots, and we again present it to the attention of the law making powers. In fact, we believe that, of all matters pertaining to the care of the dependent or defective classes, this is now the most important and should receive consideration first of all.

Justice, humanity and economy each and all demand the separate care of this class.

The special reasons for this statement have been fully presented in our previous reports, to which we call attention, and especially do we call attention to a paper appended hereto and marked Appendix "A." The paper was read before the National Conference of Charities and Digitized by

Correction in June last, by Ernest Bicknell, the Secretary of the State Board of Charities of Indiana, and is entitled, "Feeble-mindedness as an Inheritance," and is a very careful study of some of the more important reasons for state care for adult idiots and feeble-minded.

#### OHIO HOSPITAL FOR EPILEPTICS.

The Ohio hospital for epileptics, at Gallipolis, was opened November 30, 1893, with a capacity for two hundred and fifty patients, and is now so far advanced as to accommodate six hundred.

This institution was the first of the kind in the world established by a state and supported from the public funds, and among specialists the wisdom of aggregating epileptics in a separate institution was greatly questioned.

The results thus far, however, have been very satisfactory and it now seems demonstrated that separate care for epileptics is far preferable to the old methods of association with the insane.

A large portion of epileptics, except during brief periods often days or weeks apart, are competent workers in any of the ordinary occupations of life, and are happier and healthier for such occupation. In fact, under the colony or community system now being organized and developed at Gallipolis, with shops and lands to utilize the various kinds of labor, it seems reasonably certain that epileptics can be self-supporting. In any event it is certain that the cost of separate care will be no greater, and the advantages will be much more increased, not only to the epileptics themselves, but, also, to the inmates of infirmaries and insane asylums, with whom they have heretofore been associated.

#### CHILDREN'S HOMES.

There are now in the state of Ohio forty-six children's homes, in which one thousand five hundred and twenty-one children have been received during the year. These, with the two thousand and thirty-six on hand at the beginning of the year, give a total for the year of three thousand five hundred and fifty-seven children, of whom two thousand one hundred and eighty-seven are reported on hand.

The great good accomplished by these institutions is unquestionable, but it would seem possible that with larger facilities for placing children in families, the average number on hand could be largely reduced and a corresponding reduction in the cost of maintenance attained. The law authorizing the employment of district agents does not seem to have been utilized, which is greatly to be regretted.

#### CRIPPLED CHILDREN.

In many children's homes it seems to be customary to refuse admission to children crippled or deformed. This practice seems to be clearly contrary to the spirit of the statutes creating these homes. Clearly the

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object in view was to care for dependent homeless or helpless children, and certainly of these, a crippled child is most in need of such care. The law says "a children's home shall be an asylum for all children under the age of sixteen of a sound mind and free from all infectious diseases, and having resided in the county not less than one year."

The fact that a crippled child requires more care, and is not easily placed out, by adoption or indenture, is certainly no reason why it should be excluded from the home, for the greater its dependence the greater its claim upon the public for protection. If necessary it should be retained until of age, and if possible by education and industrial training fitted for self support.

By proper surgical treatment, at an early age, many crippled children could be greatly improved, and in some cases cured, and in hopeful cases such treatment should be furnished if possible.

#### THE OHIO PENITENTIARY.

The change of administration in the penitentiary in March last has resulted in large improvements in that institution, and upon the whole its condition is more satisfactory than it has been for many years past. Among the improvements inaugurated are: The substitution of solitary cells for the old forms of corporal punishment; the restitution of the Bertillon system for the identification of prisoners; the abolition of the lock step; the enlargement of prison industries; and in other directions there is a better condition of affairs in progress.

#### PRISON LABOR.

Under all prison systems, if discipline is to be maintained at its best, and reformation promoted and health preserved, some form of prison labor is absolutely essential. Unfortunately in recent years there has been a prejudice against prison labor which has crystalized into legislation in Ohio, as well as in some other states, to such an extent as to make it difficult to provide employment for prisoners, and the result is that they are to a large extent kept in idleness. Men in idleness rapidly deteriorate both physically and mentally; some go to the hospital for want of exercise, some go to the insane asylum through loss of reason, and all, upon their discharge, go out so impaired as to render it difficult and often impossible to earn an honest living, even if they had an opportunity to do so.

The entire prison labor of the country as compared with the same kind of labor outside amounts only to two and one-half per cent., and in the nature of things cannot affect prices or wages to an appreciable extent. Prison labor as compared with all kinds of labor outside, the only proper comparison, is shown by investigations of the census and labor bureaus, to be only fifty-four hundredths of one per cent. Doubtless, locally, in rare instances it may cause injurious competition, but this can

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easily be remedied by suitable legislation. In the larger field of the country, as a whole, the competition is not worth considering.

#### COUNTY JAILS.

The law of the state ("Act of April 9, 1883, O. L. Vol. 80, p. 102), which requires "that whenever the construction of a county jail will permit, the strict separation of prisoners shall be maintained at all times, and no prisoners therein awaiting trial shall be placed, or allowed to remain in the same cell or room with any other prisoner," we are sorry to say has been largely nullified by the neglect or refusal of sheriffs to obey it, and the result is that the corrupting association of old criminals with young prisoners is continued, and our jails are schools of crime. In the circumstances it would seem essential that more stringent legislation should be enacted. Perhaps, as in Minnesota, it would be sufficient to require that no bills for the board of prisoners should be paid to sheriffs, except upon satisfactory evidence that the law for the separation of prisoners had been complied with; provided, however, that such requirement should only apply to such jails as are certified by the Board of State Charities as being so constructed as to admit of such separation.

For the further consideration of this subject of county jails we append hereto Appendix "B," a paper read at the Minnesota State Conference of Charities and Correction by Joseph P. Byers, Clerk of this board.

#### OHIO STATE REFORMATORY.

The Ohio State Reformatory has been completed far enough to receive and utilize a limited number of prisoners. One hundred and fifty inmates of the Ohio Penitentiary were transferred to that institution in September last, and since then, up to November 15th, sixty-two prisoners have been received by sentence from the courts.

In view of the limited appropriations it will require at least two years to complete the Reformatory, but in the meantime the labor of prisoners can be actively utilized in the construction of the enclosing wall, the building of shops, the grading of grounds, and in many other ways.

The completion of the fifth tier of cells, in the western cell block, under contract. will afford additional accommodation that all prisoners sentenced by the courts, for some time to come, can be received and cared for. This cell block will have three hundred and twenty cells, of these there are a number of double cells for the association of prisoners in the first grade, as a special reward for good conduct, and there are always a few in the hospital so that four hundred prisoners can be cared for without crowding. The prisoners from the Ohio Penitentiary have but short terms to serve, and their number has already been reduced, so that it seems probable that all prisoners sentenced by the courts prior to the completion of the east cell block can be received and properly cared for. Digitized by Google Until the wall is completed, and shops provided, the distinctively reformatory work of the institution cannot be undertaken to any large extent.

#### WORKHOUSES.

The workhouses of the state have never been in a more satisfactory condition than at present. There are now eight of these institutions, with a total population during the year of twelve thousand two hundred and twenty-one, and at the close of the year of one thousand one hundred and sixty-four, as follows: Canton, 85, Cincinnati, 390, Cleveland, 429, Columbus, 39, Dayton, 72, Toledo, 75, Zanesville, 55, and Xenia, 19.

The cumulative sentence law has not been carried into effect as fully as it should be, but since the amendments of the last session of the general assembly, the courts have given more attention to its enforcement and its usefulness we have no doubt will be fully demonstrated.

#### OUTDOOR RELIEF.

The repeal of section 975, of the Revised Statutes, which goes into effect March 1, 1897, makes a radical change in the administration of outdoor relief of the poor. Thereafter such relief must be given by the township trustees from township funds. Wherever tested, this system has resulted in a largely reduced expenditure, without any disadvantage to the deserving poor, and we believe its application to all the counties of the state will be largely beneficial, and will save many thousands of dollars to the taxpayers.

It is to be hoped that in townships where cities are located that township trustees will work in cooperation with associated charity organizations, and that no relief will be administered except upon careful investigation and registration.

#### BOARDS OF COUNTY VISITORS.

Boards of County Visitors have now been appointed in all of the counties of Ohio except Carroll, Columbiana, Coshocton, Cuyahoga, Jefferson, Ross, Seneca, Shelby and Wayne counties.

The appointment of these boards is mandatory upon the courts and the reasons for neglecting the duties thus imposed upon judges are not reported. With rare exceptions, wherever the boards have been apappointed, their services have been of the highest value, and it is greatly to be regretted that any county should be without such a board.

As a rule, the members of these boards have been selected from the most intelligent and philanthropic men and women of the several counties, and the fréquent inspection and careful consideration of local institutions coming under their supervision cannot be otherwise than helpful.

In view of the fact that the members of these boards serve without any compensation it hardly seems fair that they should be required to

pay their own traveling expenses, and therefore we recommend that such expenses, to an amount not exceeding fifty dollars per year for each board shall be allowed by the county auditor upon vouchers approved by the chairman of the board, and paid by the county treasurer.

#### SALARY OF CLERK.

In view of the large responsibilities and increased duties of the Clerk of this board, we recommend an increase of salary from twelve hundred (\$1,200.00) dollars, to at least sixteen hundred (\$1,600.00) dollars.

Similar positions in other boards of the state with no greater requirements are paid much higher salaries, as for example: The Chief Inspector of Workshops and Factories, two thousand (\$2,000.00) dollars; the salary of the Commissioner of Common Schools. two thousand (\$2,000.00) dollars; salary of chief clerk, seventeen hundred (\$1,700.00) dollars; Commissioner of Labor Statistics, two thousand (\$2,000.00) dollars, and Dairy and Food Commissioner, two thousand (\$2,000.00) dollars; and in the Board of State Charities of other states the salary of the clerk, or secretary as he is generally called, is still higher and often double what it is in Ohio, as for example: Massachusetts, two thousand (\$2,000.00) dollars; Pennsylvania, three thousand (\$3,000.00) dollars; Michigan, two thousand (\$2,000.00) dollars; Minnesota, three thousand (\$3,000.00) dollars, and Indiana, twenty-five hundred (\$2,500.00) dollars.

Respectfully submitted,

Asa S. Bushnell, Governor and President ex-officio.

R. Brinkerhoff,
Wm. Howard Neff,
Henry C. Ranney,
Chas. Parrott,
M. D. Follett,
James L. Wilson,
Members of the Board.

Signed, JOSEPH P. BYERS, Clerk.

# Clerk's Report.

To the Members of the Board of State Charities:

GENTLEMEN: I have the honor to submit herewith my report as Clerk for the year 1895-6, together with the usual statistical tables. The general summary of these shows as follows:

	9	. h	s <del>+</del>	무무료+
	the	Daily average number actually in the insti- tution.	Total current expenses for the year, includ- ing salaries.	Per capita cost on number actually in institution and total current expenses, including salaries.
	,	#:#	2 S	S C T I
	Total number for year.	_ E e	×.=	r capita cost on uber actually in stitution and current expenses, cuding salaries.
	<u>.</u>	, <sup>6</sup> ±	ar,	r capita cost ober actually stitution an current expen
İ	鱼	8 .1	rrent year laries	Sex 18 C
į	n	. 14 €	la la	r capita c ber actus stitution current e
ι,	₽	nily av actual tution	sal sal	r capita ber acti stitution current
'	otal year.	, <b>P</b> 3.3	for ing	8 4 2 4 9
	48 %	a:i	1 22.5	C C S D C
·	H	Α .	Į Ĕ	Ã
State Institutions.				
Athens State Hospital	1,057	819	\$117,122 (	01 \$143 00
Cleveland " "	1,307	1,004	162,390	
Columbus " "	1,708	1,274	195,293	
Dayton " "	1,047	839	173,851	
ongview Hospital	1,218	1,006	173,988	
Coledo State Hospital	1,635	1,276	159,174	
Ohio Hospital for Epileptics	758	546	83,101	
nstitution for F. M. Y	1,031	933	141,579	
" " D. & D	484	378	85,056 8	
" "Blind	313	252	56,136	56 222 76
). S. & S. O. H., Xenia	1,046	896	147,761 (	03   164 95
D. S. & S. H., Sandusky	1,829	1,041	155,446	
Boys' Ind. School, Lancaster	1,734	773	87,887	22 113 69
Girls' Ind. Home, Delaware	423	345	34,954	62   101 31
Ohio Penitentiary, Columbus	3,298	2,174	288,807 8	80   132 85
D. S. Reformatory, Mansfield	212	171		•••••
, Total state institutions	18,600	13,727	\$2,062,551	93 152 15
Municipal Institutions.				
Canton Workhouse	765	70	<b>\$</b> 5,790 3	32 \$7 55
Cincinnati "	3,606	474	55,898 (	02   120 45
Cleveland "	3,855	444	45,953 (	02   1:3 97
Columbus "	482	65	6,266 (	95 86
Dayton "	793	1	13,156 (	
Coledo "	1,441	92	10,025 4	
Kenia "	220	ļ	3,763 6	
anesville "	864		19,142	
Cincinnati House of Refuge	824	378	62,655 8	33   165 75
Total	12,850	1,523	\$222,650	12
County Institutions.				
County Infirmaries	23,842	,	\$863,376	14
County children's homes	3,548		223,755 (	03
County jails	11,077	····	130,238 8	
Outdoor relief	84,833	·	516,634 5	
Soldiers' Relief Com	30,000		342,407 3	36
Total	153,300		\$2,076,412	30
· ·	184,750		\$4,361,614	

The work of the year, in so far as the visitation of institutions is concerned has been more or less interfered with by the character of the office work, which has required largely my personal supervision, especially that part of it incidental to the organization of and preparation for the Annual State Conference, and of the State Conference Board.

Since the repeal of section 975, relating to the administration of out-door relief, we have been in correspondence with the several township clerks and trustees (there are 1,372 townships in the state), and by this means and through our Bulletin, and a special blank, a copy of which is inserted in this report, Appendix "C," have attempted to prepare the way for securing detailed and accurate reports from each township.

In this connection I wish to call your attention to the great good that has come through the Bulletin. Your action in making it a permanent feature of the work of the Board was well taken. The demand has been such as to exhaust Nos. 1, 3, 4 and 6. The editions printed have run from 3,500 to 7,500 copies. Beginning with the issue of Bulletin No. 8 we shall have the advantage of a reduced rate of postage as the postal authorities have admitted the Bulletin to the mails as second class matter.

During the year the pamphlets, reports and books accumulated in the office during the past fifteen years have been catalogued and numbered and a card index of them made.

The Cumulative Sentence Law has been the occasion for considerable correspondence. Its observance in general still falls short of the requirements of the law.

The following named Boards of County Visitors have submitted annual reports of their work for the year just closed: Ashland, Athens, Champaign, Crawford, Darke, Defiance, Hamilton, Harrison, Highland, Huron, Lorain, Madison, Muskingum, Ottawa, Perry, Portage, Sandusky, Shelby, Stark, Summit, Trumbull and Warren. Hereafter these reports, or extracts from them, will be printed in the Bulletins.

Respectfully submitted,

JOSEPH P. BYERS, Clerk.



# ROSTER OF SUPERINTENDENTS AND STEWARDS OF STATE INSTITUTIONS.

ATHENS STATE HOSPITAL, AT ATHENS.
Superintendent, E. H. Rorick, M. D
CLEVELAND STATE HOSPITAL, AT CLEVELAND.
Superintendent, H. C. Eyman, M. D
COLUMBUS STATE HOSPITAL, AT COLUMBUS.
Superintendent, A. B. Richardson, M. D
DAYTON STATE HOSPITAL, AT DAYTON.
Superintendent, J. M. Ratliff, M. D
LONGVIEW HOSPITAL, AT CARTHAGE.
Superintendent, F. W. Harmon, M. D.       Appointed Nov. 25, 1890         Steward, H. M. Foss       " July 1, 1894
TOLEDO STATE HOSPITAL, AT TOLEDO.
Superintendent, H. A. Tobey, M. D.       Appointed Apr. 19, 1892         Steward, Robt. E. Hamblin       " Apr. 17, 1893
OHIO HOSPITAL FOR EPILEPTICS, AT GALLIPOLIS.
Manager, H. C. Rutter, M. DAppointed Steward, Geo. Currier"
INSTITUTION FOR FEEBLE-MINDED YOUTH, AT COLUMBUS.
Superintendent, G. A. Doren, M. D
INSTITUTION FOR DEAF AND DUMB, AT COLUMBUS.
Superintendent, Prof. J. W. Jones
INSTITUTION FOR THE BLIND, AT COLUMBUS.
Superintendent, Rev. R. W. Wallace



# BOARD OF STATE CHARITIES.

# TRUSTEES OF STATE INSTITUTIONS.

(Corrected to April 10, 1897.)

#### ATHENS STATE HOSPITAL, AT ATHENS.

Names and postoffice address.	Date of appointment.	Appointment expires.
Thos W Moore Marietta	May 11 1809	April 1808
G David Jackson	August 14 1892	April 1899
Hollis C. Johnson Gallipolis	April 17 1895	April, 1900
Thos. W. Moore, Marietta	December 7, 1896	April 1901
John A. Hayman, Middleport	April 9, 1897	April, 1902
CLEVELAND STA	ATE HOSPITAL, AT CLEVELAND.	
D. C. Carduan Maraillan	A	A
D. S. Gardner, Massillon	Pohanoan 90 1909	April, 1697
G. D. Gessaman, Youngstown	February 29, 1892	April, 1898
John S. Ellen, Willoughby C. N. Schmick, Leetonia	March 19, 1894	April, 1899
C. N. Schmick, Lectonia	April 7, 1892	April, 1900
Henry B. Perkins, Warren	February 28, 1892	April, 1901
COLUMBUS STA	ATE HOSPITAL, AT COLUMBUS.	
James W Halfhill Lime	:	•
Frank H Southard Zanesville	November 15, 1892	April 1898
C D Martin Lancaster	March 14 1809	April 1800
James W. Halfhill, Lima	Dahman 19 1909	April 1000
Taba Dabarta Camar	Comtom bon 19, 1002	April, 1900
John Roberts, Gomer	September 12, 1000	April, 1801
DAYTON STA	TE HOSPITAL, AT DAYTON.	
Frank W. Whittaker, Hamilton	April 17, 1896	April. 1898
Oscar Shennard West Alexander	April 13, 1892	April, 1899
Frank W. Whittaker, Hamilton Oscar Sheppard, West Alexander Thomas A. Burns. Versailles	Inne 1895	April 1900
Geo. K Smith, Clifton	April 7 1895	April 1901
Isaac N. Walker, Lebanon	Tuly 2 1809	April 1002
1588C N. Walker, Lebanon	July 6, 1602	April, 1802
LONGVIEW	HOSPITAL, AT CINCINNATI.	
Charles Fleischmann, Cincinnati William J. Coppock, Cincinnati	April 2, 1892	April. 1899
William I. Coppock, Cincinnati	April 16 1890	April. 1900
Charles H. Smith, Cincinnati		<b>-</b>
W. H. Campbell, Cincinnati		
John Zumstein, Cincinnati		
TOLEDO ST	ATE HOSPITAL, AT TOLEDO.	
Chas. Foster, Fostoria	March 23, 1892	April, 1898
Parks Foster, Elvria	March 21, 1892	April, 1899
Parks Foster, Elyria	February 11, 1892	April, 1900
William Geyser, SwantonL. C. Cole, Bowling Green	March 23, 1892	April, 1901
L. C. Cole. Bowling Green	April 6, 1897	April, 1902

#### BOARD OF STATE CHARITIES.

#### OHIO HOSPITAL FOR EPILEPTICS, AT GALLIPOLIS.

Onio hospital p	OR EFILEFIICS, AT GALLIFOLIS.	
Names and postoffice address.	Date of appointment.	Appointment expires.
Edwin S. Wilson, Ironton	February 7, 1893	February, 1898 February, 1899 February, 1900 February, 1901 February, 1902
massillon st	ate hospital, at massillon.	
D. J. Sinclair, Steubenville A. B. Richardson, Columbus Benj. F. Perry, Jr., Jefferson Samuel J. McMahon, Cambridge Dr. Eugene G. Carpenter, Clevel'd Geo. D. Copeland, Marion	December, 1892	November, 1897 November, 1898 November, 1899 November, 1900
institution for t	HE DEAF AND DUMB, AT COLUMN	BUS.
Russell B. Heller, Napoleon George Hamilton, East Liverpool. George P. Tyler, Russellville W. A. Gipson, Upper Sandusky Wm. L. McElroy, Mt. Vernon	April 20, 1893	April, 1898 April, 1899 April, 1900 April, 1901 April, 1902
INSTITUTION I	FOR THE BLIND, AT COLUMBUS.	
Chas. Roose, Oak Harbor	March 23, 1892	April, 1898 April, 1899 April, 1900 April, 1901 April, 1902
institution for fu	EBLE-MINDED YOUTH, AT COLUB	4BUS.
S. A. Conrad, Massillon	February 17, 1888	April, 1898 April, 1899 April, 1900 April, 1901 April, 1902
	SAILORS' ORPHANS' HOME, AT X	
John I. Wilson, Cambridge J. S. Jones, Delaware P. H. Downing, Toledo Henry C. Houston, Urbana A. V. Rice, Columbus	March 23, 1892	April, 1897 April, 1898 April, 1899 April, 1900 April, 1901
OHIO SOLDIERS' A	nd sailors' home, at sanduse	cy.
J. J. Sullivan, Cleveland	June 3, 1892	April, 1898 April, 1899 April, 1900 April, 1901 April, 1902

# EXECUTIVE DOCUMENTS

## OHIO PENITENTIARY, AT COLUMBUS.

Names and postoffice address.	Date of appointment.	Appointment expires.
Wm. B. Cherington, Wellston	March 31, 1896	April. 1897
C. S. Muscroft, Cincinnati	March 31, 1896	April 1898
Geo. J. Hoffman, Cleveland	March 31, 1896	April, 1899
Thos. H. McConica, Findlay	March 31, 1896	April, 1900
Isaiah Rose, Marietta	March 31, 1896	April, 1901
OHIO STATE RE	FORMATORY, AT MANSFIELD.	
L. F. Limbert, Greenville	April 28, 1891	April, 1897
R. W. C. Gregg, Batavia	April 17, 1896	April, 1898
M. Marriott, Delaware	April 28, 1891	April, 1899
ohn D. Baird, Hayesville	April 4, 1894	April, 1900
ohn D. Baird, Hayesville	April 26, 1895	April, 1901
Geo. G. Washburn, Elyria	April 28, 1891	April, 1902
BOYS' INDUSTR	IAL SCHOOL AT LANCASTER.	
F. White, Logan	February 29, 1892	April, 1898
E. W. Poe, Columbus	June 5, 1896	April, 1899
ohn L. Vance, Gallipolis	April 24, 1896	April, 1900
. J. Pugsley, Hillsboro	February 4, 1892	April, 1901
William Beatty, Toledo	April 15, 1892	April, 1902
GIRLS' INDUST	RIAL HOME, AT DELAWARE.	
saac N. Hathaway, Chardon	January 24, 1894	April, 1898
M. E. Stamats, Richwood	March 19, 1894	April, 1899
r. E. Hoyt, Jefferson	March 19, 1895	April, 1900
ohn C. Beatty, Ravenna	April 7, 1896	April, 1901
B. H. Millikan, Washington C. H	March 7, 1892	April, 1902

#### BOARD OF STATE CHARITIES.

#### COUNTY VISITORS.

ADAMS COUNTY.
J. M. Lockhart
ALLEN COUNTY.
Dr. D. H. Baldwin       Bluffton       May 30, 1897         Mrs. Amos Young       Lima       May 30, 1897         Mary M. Junkin       Lima       May 30, 1898         C. F. Bryan       Lima       May 30, 1898         Dr. E. J. Barr       Lima       May 30, 1899         Mrs. J. L. Hughes       Lima       May 30, 1899
ASHLAND COUNTY.
G. I. Yearick       Ashland       April 22, 1897         Mrs. E. C. Woodhouse       Ashland       April 22, 1897         I. C. Jacoby       Ashland       April 22, 1898         Mrs. W. A. Weygandt       Ashland       April 22, 1898         P. H. Clark       Ashland       April 22, 1899         Mrs. E. S. Briggs       Ashland       April 22, 1899
ASHTABULA COUNTY.
A. B. Luce       Kingsville       May 8, 1899         Mrs. L. G. Loomis       Jefferson       May 8, 1899         Lewis Waters       Orwell       May 8, 1898         Mrs. Chas. Hayward       Conneaut       May 8, 1898         Mrs. Geo. W. Carter       Geneva       May 8, 1897         H. H. Hall       Ashtabula       May 8, 1897
ATHENS COUNTY.
Mrs. D. B. Stewart       Athens       May 16, 1897         Rev. W. A. Powell       Athens       May 16, 1897         J. H. Mohler       Lee       January, 1898         C. P. Chester       Grosvenor       January, 1898         S. F. Severage       Mansfield       January, 1900
AUGLAIZE COUNTY.
Mrs. C. W. WilliamsonWapakonetaSept. 23, 1897

 Chas. N. Stearns
 St. Marys
 Sept. 23, 1897

 J. A. Werit
 Wapakoneta
 Sept. 23, 1898

 Mrs. C. A. Layton
 Wapakoneta
 Sept. 23, 1898

 George Fisher
 Wapakoneta
 Sept. 23, 1899

 Mrs. L. N. Blume
 Wapakoneta
 Sept. 23, 1899



# BELMONT COUNTY.

BELMONT COUNTY.
J. W. Wellons, M. D.       Barnesville       Feb. 25, 1898         Mrs. Robert Alexander       St. Clairsville       Dec. 25, 1898         D. H. Milligan       St. Clairsville       Dec. 25, 1899         Mrs. Albert Lawrence       St. Clairsville       Dec. 25, 1899         Mrs. T. A. Rodefer       Bellaire       Feb. 25, 1899
BROWN COUNTY.
Mrs. Chambers Leggett
BUTLER COUNTY.
Adam Laurie, Sr
CARROLL COUNTY.
No board.
CHAMPAIGN COUNTY.
C. F. Collwell       Urbana       Aug. 18, 1897         Mrs. Lucretia B. Thomas       Kennard       Aug. 18, 1897         W. H. O'Conner       Urbana       May 21, 1898         Mrs. Emma Weaver       Urbana       May 21, 1898         Mrs. Asa Wiant       St. Paris       May 21, 1899         John C. Sceva       Mechanicsburg       May 21, 1899
CLARK COUNTY.
H. S. Showers       Springfield       May 21, 1897         Mrs. John H. Thomas       Springfield       May 21, 1897         B. F. Prince       Springfield       May 21, 1898         Mrs. Susan G. Hunt       Springfield       May 21, 1898         H. S. Bradley       Springfield       May 21, 1899         Mrs. F. M. Hagan       Springfield       May 21, 1899
CLERMONT COUNTY.
Sarah H. Brown       Batavia       1897         John S. Parrott       Batavia       1897         Mrs. Percy F. Jamison       Batavia       1898         Simeon Teasdale       Batavia       1898         Laura McMillen       Batavia       1899         John H. Orebaugh       Batavia       1899

#### CLINTON COUNTY.

CHAITON COUNTY.
Miss Ellen C. Wright       Wilmington       July 9, 1897         Dr. E. Briggs       Wilmington       July 9, 1897         Mrs. Delilah Outcalt       Wilmington       July 6, 1898         Dr. S. B. Lightner       Sabina       July 9, 1898         Mrs. Mary R. Wire       Wilmington       July 9, 1899         Rev. A. N. Spahr       Wilmingtou       July 9, 1899
CRAWFORD COUNTY.
Mrs. E. R. Kearsley       Bucyrus       1897         Mrs. J. R. Gormley       1897         Martin Deal       Bucyrus       1898         Mrs. L. C. Flighman       Bucyrus       1898         Mrs. W. C. Lemert       Bucyrus       1899         Mrs. J. E. Hall       Bucyrus       1899
DARKE COUNTY.
L. R. Martin       Woodington       June 24, 1897         Mrs. Enoch Westerfield       Greenville       June 24, 1897         Mrs. D. E. Vantilburg       Greenville       Sept. 10, 1898         Charles H. Lee       Feb. 5, 1898         Henry St. Clair       Greenville       June 24, 1899         Mrs. Jennie H. Martz       Greenville       June 24, 1899
DEFIANCE COUNTY.
Mr. J. R. Wilhelm       Defiance       May 14, 1897         Mrs. J. R. Wilhelm       Defiance       May 14, 1897         Mr. J. L. Badington       Hicksville       May 14, 1898         Mrs. J. L. Badington       Hicksville       May 14, 1898         Mrs. E. H. Lewis       Defiance       May 14, 1899         John L. Scott       Defiance       May 14, 1899
DELAWARE COUNTY.
Mrs. N. T. Overturf       Delaware       July 21, 1897         Samuel Willey       Delaware       July 21, 1897         Mrs. T. R. Smith       Delaware       July 21, 1898
ERIE COUNTY.
Mrs. Mary Buyer       Sandusky       July 19, 1897         J. F. Greene       Sandusky       July 19, 1897         Mrs. James Anderson       Huron       May 15, 1898         Charles Sutor       Sandusky       May 15, 1898         Theodore Alvord       Sandusky       May 15, 1899         Mrs. J. F. Mack       Sandusky       May 15, 1899
FAIRFIELD COUNTY.
Dr. A. J. Peters       Lancaster       April, 1897         Mrs. F. C. Whiley       Lancaster       April, 1897         Geo. B. Cunningham       Lancaster       April, 1898         Mrs. Elizabeth Bininger       Lancaster       April, 1898         Wm. Kooken       Lancaster       April, 1899         Mrs. A. Bauman       Lancaster       April, 1899

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#### FAYETTE COUNTY.

William L. Shaw, PresWashington C. H
Mrs. Kittie L. HidyWashington C. H
Rev. Norman JonesWashington C. H
W. H. DickWashington C. H
Mrs. M. B. SharpWashington C. H
FRANKLIN COUNTY.
Mrs. N. E. Lovejoy
Josiah Lumm
Mrs. Thomas E. PowellColumbus
Frank C. Hubbard
Col. G. S. Innia
Mrs. Robt. E. Neil
FULTON COUNTY.
Dr. Wm. RamseyOctober, 1897
Mrs. Kate HammDeltaOctober, 1897
Mrs. W. W. CroningerWauseonOctober, 1898
Dr. P. J. LenhartWauseonOctober, 1898
Mrs. Jennie IsbellDeltaOctober, 1899
Dr. J. H. WaddellDeltaOctober, 1899
GALLIA COUNTY.
R. J. Mauck1897
Mrs. D. A. Howell
Fred H. Kerr
V. H. Switzer
Fannie Miles
GEAUGA COUNTY.
Mrs. Wm. G. KingChardon
Wm. G. King
Mrs. A. B. Wells
A. B. Wells
Carlos Harper
Eliza HarperMay, 1899
GREENE COUNTY.
Mrs. Dr. Shappee
V. P. PrughXenia
T. V. Duboise
Rev. Frank DeLoeXenia1898
GUERNSEY COUNTY.
Mrs. C. L. Campbell
Mrs. J. E. Sanky
Mrs. W. N. LedlieKimboltonMarch, 1899
HAMILTON COUNTY.
A. Jos. NurreMay 1, 1897
Mrs. John CarlisleCincinnatiMay 1, 1897
W. J. BreedMay 1, 1898
Mrs. Jacob SchroderCincinnatiMay 1, 1898
Rev. Geo. A. ThayerCincinnatiMay 1, 1899
Mrs. Thos. P. WhiteCincinnati

#### HANCOCK COUNTY.

Miss Ella Magrum       Findlay       February 10, '97         L. A. Carabin       Findlay       February 10, '97         Mrs. Joseph R. Kagy       Findlay       February 10, '98         C. W. Patterson       Findlay       February 10, '98         Mrs. H. P. Crouse       Findlay       February 10, '99         Dr. M. S. Williamson       Findlay       February 10, '99
HARDIN COUNTY.
Mrs. Phebe C. Park       Kenton       October, 1897         Thos. C. Mahon       Kenton       October, 1897         Mrs. Sallia Espy       Kenton       October, 1898         Z. B. Campbell       Ada       October, 1898
HARRISON COUNTY.
D. B. Welch
HENRY COUNTY.
Dr. J. Bloomfield       Napoleon       April, 1897         Mrs. Mary Orwig       Napoleon       April, 1897         Mrs. J. S. Haly       Napoleon       April, 1898         Mrs. Clara Balsley       Napoleon       April, 1898         Dr. F. S. Martin       Napoleon       April, 1899         Mrs. Sarah Schumaker       Napoleon       April, 1899
HIGHLAND COUNTY.
Ellen R. Patterson
HOCKING COUNTY.
Mrs. Charles Wright       Logan       June 14, 1897         Mrs. N. J. Weiland       Logan       May 8, 1898         Mrs. C. E. Bowen       Logan       May 7, 1899         Mrs. W. W. McCray       Logan       May 7, 1899
HOLMES COUNTY.
B. C. Sill

### HURON COUNTY.

HURON COUNTY.
Miss Lottie GibbsNorwalk
C. P. VenusNorwalk 1897
Mrs. Georgina RexfordNorwalk1898
Samuel Gray
A. Sheldon
Miss Mary StewartNorwalk1899
JACKSON COUNTY.
James Chestnut
Mrs. John T. MooreJacksonFeb. 10, 1898
Dr. J. L. GahmJacksonFeb. 10, 1898
Mrs. R. W. ThomasJacksonFeb. 10, 1898
D. W. WilliamsFeb. 10, 1897
Mrs. Morris Sternberger JacksonFeb. 10, 1897
JEFFERSON COUNTY.
· · · · · · · · · · · · · · · · · · ·
No board.
KNOX COUNTY.
Dr. C. K. Konard
Mrs. Isaac JohnsonMt. VernonMarch, 1897
Mrs. S. D. DalrympleMt. VernonMarch, 1898
W. S. Cummings
W. W. Walkey
Mrs. W. C. Cooper
Mis. W. C. Cooper
LAKE COUNTY.
A. G. Smith
Mrs. Hettie George Painesville April 15, 1897
W. A. Breed
Mrs. Mary J. YoungPainesvilleApril 15, 1898
J. J. Harrison
Mrs. Martha H. ElwellWilloughbyApril 15, 1899
mis. marcha 11. 14 weil willoughby
LAWRENCE COUNTY.
Mrs. Julia HaywardJuly 3, 1897
Ezra V, DeanJuly 3, 1897
LICKING COUNTY.
Mrs. Judge FollettNewark
Mrs. HoglandNewark
F. O. DonivanNewark
J. R. DaviesNewark
Thos. K. SuttonNewark
LOGAN COUNTY.
H. J. BigleyBellefontaine
Miss Dallie LoweBellefontaine
Mrs. W. A. WestBellefontaine
G. B. ThriftBellefontaine



### LORAIN COUNTY.

Mrs. W. C. Sutliff       Elyria       Nov. 26, 1897         Mrs. Chas. Plower       Elyria       Nov. 26, 1897         Dr. G. R. Sherwood       Elyria       Jan. 2, 1899         Mrs. Evaline Sampsell       Elyria       Jan. 2, 1899         H. W. Ingersoll       Elyria       Dec. 23, 1899         Wrs. O. F. Carter       Oberlin       Dec. 23, 1899		
LUCAS COUNTY.		
Mrs. Jesse Gould, 134 Irving St Toledo		
MADISON COUNTY.		
John F. Johnson       London       July 24, 1897         Mrs. Bertha W. Smith       London       July 24, 1897         S. W. Dyrflinger       London       Nov. 11, 1898         Mrs. Mary Florence       London       Nov. 11, 1898         Noah Thomas       London       Nov. 11, 1899         Mrs. Anna E. Smith       London       Nov. 11, 1899		
MAHONING COUNTY.		
Mr. C. C. Fowler		
MARION COUNTY.		
J. G. Leffler       Marion       Sept. 29, 1897         Mrs. J. Crissinger       Marion       Sept. 29, 1897         P. O. Sharpless       Marion       Oct. 29, 1898         Mrs. H. C. Haberman       Marion       Oct. 29, 1898         P. Kelly       Marion       Oct. 21, 1899         Mrs. A. F. Tristram       Marion       Oct. 21, 1899		
MEDINA COUNTY.		
Dr. F. D. Freeman       Medina       June, 1897         Mrs. Helen McDowell       Medina       June, 1897         W. F. Sargent       Medina       June, 1898         Mrs. Electa F. Leach       Medina       June, 1898         Mrs. E. J. Gray       Medina       June, 1899         James M. Crawford       Seville       June, 1899		
MEIGS COUNTY.		
Jacob Goegline       Pomeroy       April 3, 1897         Mrs. J. H. Hysell       April, 1897         Mrs. B. F. Biggs       Pomeroy       Sept. 16, 1898         Wm. Chittenden       Racine       Sept. 16, 1898		

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### MERCER COUNTY.

Mrs. C. E. Riley		
MIAMI COUNTY.		
J. P. Barron.       Troy       June, 1897         Mrs. Lorens Northcutt.       Troy       June, 1897         Mrs. Sarah DeWeese.       Troy       June, 1898         P. M. Waddell.       Piqua       June, 1898         H. Y. Rush       West Millin       June, 1899         Mrs. Martha Barnes.       Troy       June, 1899		
MONROE COUNTY.		
Mrs. W. E. MallonyWoodsfieldWoodsfieldWoodsfield		
MONTGOMERY COUNTY.		
Mrs. Octavia Gottschall       Dayton       June 25, 1897         Dr. R. R. Petitt       Dayton       June 25, 1897         Mrs. Emma C. Smith       Dayton       June 25, 1898         Newton Thacker       Dayton       June 25, 1898         Mrs. Lucy I. Patterson       Dayton       June 25, 1899         Adam Lesuer       Dayton       June 25, 1899		
MORGAN COUNTY.		
Matilda C. Sharp.       McConnellsville       1897         W. R. Kelly.       McConnellsville       1897         Rev. L. McKumler.       McConnellsville       1898         Ella J. Manley.       Malta       1898         Hannah Porter.       McConnellsville       1899         T. J. Barnes.       McConnellsville       1899		
MORROW COUNTY,		
Dr. Wood       Mt. Gilead       Nov. 23, 1897         Dr. F. E. Thompson       Marengo       Nov. 23, 1897         Geo. W. Jackson       Mt. Gilead       Nov. 23, 1898         Mrs. Minnie Barry       Mt. Gilead       Nov. 23, 1898         Mrs. Alice Case       Mt. Gilead       Nov. 23, 1899         Mrs. Bertha Beebe       Mt. Gilead       Nov. 23, 1899		
MUSKINGUM COUNTY.		
Dr. H. T. Sutton		

### NOBLE COUNTY.

	dwell	
	blesville	
	dwell	
	dwell	
•	dwell	
Mrs. Elizabeth DanfordSan	ahsville	
	AWA COUNTY.	
	noreJuly 6, 1897	
	10a July 6, 1897	
	rt ClintonJuly 6, 1898	
	te SideJuly 6, 1898	
	k HarborJuly 6, 1899 k HarborJuly 6, 1899	
G. F. RanertyPar	k Harborjury 0, 1888	
PAUL	DING COUNTY.	
Mrs. W. A. SavagePau	ıldingJuly 7, 1897	
W. A. SavagePat	ıldingJuly 7, 1897	
	twerpJuly 7, 1898	
	twerpJuly 7, 1898	
	ıldingJuly 7, 1899	
Henry KotzemeyerPar	ıldingJuly 7, 1899	
PEI	RRY COUNTY.	
	w LexingtonJune, 1897	
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	w LexingtonJune, 1898	
	w Lexington June, 1898	
	w LexingtonJune, 1899	
S. McGiniNev	w LexingtonJune, 1899	
	WAY COUNTY.	
	rcleville	
	rclevillercleville	
Mrs. Hattle A. BostwickCl	rcieville	
PI	KE COUNTY.	
Mrs. Mary R. IonesWa	verlyFeb. 15, 1897	
•	•	
	rage county.	
	ntMay 4, 1897	
	entMay 4, 1897	
Hon. Friend WhittleseyAt	waterMay 4, 1898	
Kebecca J. McClintock	mrettsville	
	venna	
mary C. HuguesR		
PREBLE COUNTY.		
	tonMarch 3, 1897	
Muss Jennie TruaxEat	onMarch 3, 1897	
mis. Ciara Acton	onMarch 3, 1898	
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Chas. Cokefair
Frank HomanEatonMarch 3, 1899
•
PUTNAM COUNTY.
Dr. E. B. McKinley
Mrs. J. L. Long
Mrs. W. H. HickeyMay 7, 1898
Dr. W. F. Reed
Dr. Light Columbus Grove
Mrs. W. C. Tingle
RICHLAND COUNTY.
Mary J. Findley
W. M. Sturges
Nancy M. Gilbert       Mansfield       May 31, 1898         A. C. Cummins       Mansfield       May 31, 1898
Mary B. HarterMay 18, 1899
R. P. Maxwell
ROSS COUNTY.
No board.
SANDUSKY COUNTY.
Miss Mabel Dixie
Dr. W. L. Stierwalt
Dr. O. H. Thomas
Mrs. W. H. BaconClydeApril, 1899
Dr. G. S. LantermanBellevueApril, 1899
•
SCIOTO COUNTY.
Mrs. Mary KehoePortsmouthJune 20, 1897
W. B. Anderson June 20, 1897
Miss Mary DamarinPortsmouthJune 20, 1898
H. F. ThompsonPortsmouthJune 20, 1898
L. H. Murphy
Mrs. Louisa BalwertPortsmouthJune 20, 1899
SENECA COUNTY.
No board.
SHELBY COUNTY.
No board.
STARK COUNTY.
Mrs. McCollough EverhardMassillonMay 10, 1897
W. W. Gilson
Mary K. Hartzell       Canton       May 10, 1898         R. W. McCaughey       Massillon       May 10, 1898
Dr. A. V. Smith
Mrs. W. W. CantineAlliance

#### SUMMIT COUNTY.

SUMMIT COUNTY.		
W. W. Leonard		
T. F. Walsh		
Julia B. Ebright		
Mary A. Long		
L. C. Miles		
Katherine B. ClaypoleAkron1899		
TRUMBULL COUNTY.		
No. 1 13 11711 1171 1171 1171		
Mrs. J. F. WilsonWarrenMay 31, 1897		
Dr. L. G. Moore		
Mrs. C. E. KistlerMay 31, 1897		
John O. H. HartMay 31, 1898		
Mrs. R. G. Sykes		
John ColeMay 31, 1899		
TUSCARAWAS COUNTY.		
John C. DonaheyJanuary 8, 1897		
Mrs. J. L. McIlvaineNew PhiladelphiaJanuary 8, 1897		
Geo. L. Taylor		
Mrs. E. S. Slingluff		
Mrs. Amanda KaldenbaughCanal DoverJanuary 8, 1899		
W. H. StoutUhrichsvilleJanuary 8, 1899		
UNION COUNTY.		
Consider Community Production April 6 1907		
Georgia Curry		
Uriah Cahill		
J. P. MartinApril 6, 1898		
Celinda MoreyApril 6, 1898		
Jimmie Smith		
T. P. Shields April 6, 1899		
VAN WERT COUNTY.		
T T TT		
J. B. Parker		
Mrs. H. A. Reeve		
Judge H. C. GlennVan Wert		
Mrs. G. M. SaltzgaberVan WertMay 25, 1898		
Hon. J. B. SmithVan WertMay 25, 1899		
Mrs. Geo. H. MarshVan WertMay 25, 1899		
VINTON COUNTY.		
Mrs. F. P. MaggeeJune 17, 1897		
L. W. ThorpJune 17, 1897		
Joseph Elliott		
Leonard ArbaughJune 17, 1698		
Mrs. H. H. Shively		



### EXECUTIVE DOCUMENTS.

#### WARREN COUNTY,

WARREN COUNTY,		
Henry C. Miller		
WASHINGTON COUNTY.		
Dr. Jas. McClure		
WAYNE COUNTY.		
No board.		
WILLIAMS COUNTY.		
Crosby G. Sweet       Pioneer       June 24, 1897         Mrs. Crosby G. Sweet       Pioneer       June 24, 1897         M. L. Mason       Bryan       June 24, 1898         Mrs. Joseph Willett       Bryan       June 24, 1898         Mrs. Geo. Yesbera       Montpelier       June 24, 1899         Geo. Yesbera       Montpelier       June 24, 1899		
. WOOD COUNTY.		
Sarah C. Evers       Bowling Green       Jan. 8, 1897         W. T. Reece       Bowling Green       Jan. 8, 1897         Carrie Moore       Bowling Green       May 12, 1898         R. M. Dillou       Bowling Green       May 12, 1898         Celia Canary       Bowling Green       May 12, 1899         John Chaney       Bowling Green       May 12, 1899		
WYANDOT COUNTY.		
John G. Mizer		

## ROSTER OF SUPERINTENDENTS AND TRUSTEES OF CHILDREN'S HOMES.

ADAMS COUNTY.		
T. W. Ellison, Supt	West Union	
W. S. Kincaid		
G. N. Crawford		
G. J. Nicholson		
S. A. McCullough		
ALLEN COUNTY.	•	
W. F. Blair, Supt	Lima	
Joseph Tapscott		
W. L. Mackenzie.		
Wm. M. Mellville		
D. F. Hoover		
	•	
ASHTABULA COUNTY.		
Henry Hall, Pres	Ashtabula	
Theodore Hall	Ashtabula	
B. B. Seymour		
•		
ATHENS COUNTY.		
ATHENS COUNTY.		
	Athens	
Eliza Armstrong, Supt		
Eliza Armstrong, Supt	Athens	
Eliza Armstrong, Supt	Athens Athens	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker	Athens Athens Nelsonville	
Eliza Armstrong, Supt	Athens Athens Nelsonville	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker	Athens Athens Nelsonville	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.	Athens Athens Nelsonville Athens	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt	AthensNelsonvilleAthensAthens	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle	AthensNelsonvilleAthensAthensTacomaBarnesville	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer	AthensNelsonvilleAthensTacomaBarnesvilleBellaire	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer  A. Plummer	AthensAthensAthensTacomaBarnesvilleBellaireTacoma	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer	AthensAthensAthensTacomaBarnesvilleBellaireTacoma	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer  A. Plummer	AthensAthensAthensTacomaBarnesvilleBellaireTacoma	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer  A. Plummer  W. W. Watt	AthensAthensAthensTacomaBarnesvilleBellaireTacoma	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer  A. Plummer  W. Watt  BROWN COUNTY.	AthensAthensAthensTacomaBarnesvilleBellaireTacomaJacobsburg	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer  A. Plummer  W. Watt  BROWN COUNTY.  Kate McNown Copple, Matron  T. M. Swope	AthensAthensNelsonvilleAthensTacomaBarnesvilleBellaireTacomaJacobsburgGeorgetownGeorgetowu	
Eliza Armstrong, Supt  J. D. Brown  J. Jordon  J. C. Parker  E. J. Jones  BELMONT COUNTY.  W. T. Branson, Supt  Dr. G. V. Riddle  H. Roemer  A. Plummer  W. Watt  BROWN COUNTY.	AthensAthensNelsonvilleAthensTacomaBarnesvilleBellaireTacomaJacobsburgGeorgetownGeorgetown	

#### BUTLER COUNTY.

Mrs. E. O. Miller, MatronHamilton		
Mrs. Mary Smyers		
Mrs. Sarah Beardsley		
Mrs. Jane Miller		
Mrs, Mary Brown		
Mrs. Mary Beeler		
Mrs. Ann Matthews		
Mrs. Jane Skinner		
Mrs. Emily O. Miller		
Mrs. Wm. Richey		
Mrs. Lizzie Kirkpatrick		
Mrs. Albert Kenedy		
Mrs. Louise Curtis Hamilton		
Mis. Louise Curtis		
CHAMPAIGN COUNTY.		
J. C. Tomlin, SuptUrbana		
J. J. MumperUrbana		
H. H. BrecountLens		
B. F. Hull		
R. J. EasonNorth Lewisburg		
CLARK COUNTY.		
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
Adam Lenhart, SuptSpringfield		
R. B. CanfieldSpringfield		
J. Rinehart Donaldsville		
O. F. HypesSpringfield		
B. F. BrubakerSpringfield		
b. 1. Didoaxetpringheid		
CLINTON COUNTY.		
J. E. Smith, Super:ntendentWilmington		
R. T. TrembleNew Vienna		
Capt. C. Rhonemas		
M. FifeWilmington		
· · · · · · · · · · · · · · · · · · ·		
J. N. Oren		
DARKE COUNTY.		
M T Warner Consists and a second		
T. H. Monger, Superintendent		
John C. TurpenGreenville		
S. A. HostetterGreenville		
J. M. Brown		
H. J. BishGreenville		
•		
DEFIANCE COUNTY.		
Adam Hall, SuperintendentDefiance		
Wm. Hill		
C. W. Brown Evansport		
· · · · · · · · · · · · · · · · · ·		
Wm. DonleyNey		

## BOARD OF STATE CHARITIES.

## FAIRFIELD COUNTY.

Ed. M. Gillette, Superintendent Lancaster  Henry Tschopp Pleasantville  Van H. Ginder Baltimore  S. J. Wright Lancaster  Wm. H. Kooken Lancaster		
FAYETTE COUNTY.		
J. C. Irvin, Superintendent         Washington C. H           S. W. Cissus         Washington C. H           F. M. Fullerton         Washington C. H           N. Tway         Yatesville           J. B. Kountz         Washington C. H		
FRANKLIN COUNTY.		
Mrs. Mary E. White, Matron Columbus W. D. Park Columbus Wm. Earl Park Mills Ben. L. Rees Columbus Thos. Knauss Columbus		
GALLIA COUNTY.		
L. Gaston, Superintendent		
GUERNSEY COUNTY.		
John S. Prouse, Superintendent		
HARRISON COUNTY.		
E. E. Webb, Superintendent		
HOCKING COUNTY.		
D. A. Engle, Superintendeut		

#### HOLMES COUNTY.

W. A. Davidson, Superintendent		
C. T. Luthy	Millersburg	
Jacob Uhl		
G. W. Cary		
J. W. Martin	Fredericksburg	
KNOX COUNTY.	35. 37	
Chas. Cooper		
Curtis McKee		
W. S. SperyL. P. Holbrook		
*		
J. Bonar Dr. F. A. Wilber		
	ML VEIHOU	
LAWRENCE COUNTY.	•	
Mrs. Sarah F. Johnston, Matron	Ironton	
O. Otten	Ironton	
J. O. Yates		
J. M. Thomas		
J. L. Anderson	Ironton	
LICKING COUNTY.		
Edwin S. Hand, Superintendent	Newark	
Charles W. Fuller		
E. Sinnett		
S. N. Van Vorhis		
John M. Swartz		
<b>,</b>		
LOGAN COUNTY.		
Charles Farnsworth, Superintendent		
L. T. Emery		
John Brown		
John Plummer		
S. G. Fisher	Greenfield	
LUCAS COUNTY.		
John K. Niesz, Superintendent	Toledo	
John F. Kumler		
Daniel F. Cook	Maumee	
J. George Kapp		
C. C. Packard		
Wales Comme		
MRIGS COUNTY.	<b>5</b>	
D. A. Alexander, Superintendent		
S. W. Alexander		
S. D. Webb	•	
Geo. Minich	•	
John Dye	Harrisonville	
MIAMI COUNTY.		
Henry Jay, Superintendent	Troy	
T. C. Leonard	Tippecanoe City	
T, C. Brown	Piqua	
M. K. Knoop		
W. B. Cox		
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## BOARD OF STATE CHARITIES.

### MONROE COUNTY.

W. W. Morris, Superintendent         W           Geo. Ketterer         W           J. T. Dougherty         W           W. C. Mooney         W           Dr. R. A. Furgeson         W	/oodsfield /oodsfield /oodsfield	
MONTGOMERY COUNTY.		
John H. Gant, Superintendent	oayton Oayton Oayton	
MORGAN COUNTY.		
MORGAN COUNTY.  T. J. Bingham, Superintendent	IcConnelsville IcConnelsville Linggold	
PERRY COUNTY.		
J. H. Boling, Superintendent	Redfield Rehoboth New Lexington	
PIKE COUNTY.		
J. W. Turner, Superintendent.       V         F. Guth.       V         Jas. R. Foster.       V         A. M. Gregg.       W         H. W. Overman.       V	Waverly Waverly Vaverly	
PREBLE COUNTY.		
S. Huddle, Superintendent	Baton Baton Baton	
RICHLAND COUNTY.		
Mathias Mowry, Superintendent         I           Rev. H. L. Wiles         I           Hon. J. P. Seward         I           Alex. McElroy         I           David Bricker         S	Mansfield Mansfield Mansfield	
SCIOTO COUNTY.		
Mrs, Lorana H. Mowry, Matron F. John G. Peebles F. W. K. Thompson F. Dr. J. F. Davis F. Geo. D. Selby F. F. F. F. F. F. F. F. F. F. F. F. F.	Portsmouth Portsmouth Portsmouth	

### SHELBY COUNTY.

Dr. W. H. Shaw, Superintendint	Sidney
S. L. Wicoff	•
Wm. A. Graham	
R. D. Mede	
Jerry Miller	
<b>J</b> ,	
SUMMIT COUNTY.	
Mrs. R. E. Grubb, Matron	.Akron
Mr. D. E. Hill	
Dr. A. M. Armstrong	.Akron
Harvey Baldwin	
M. J. Betts	Cuyahoga Falls
TRUMBULL COUNTY.	
•	TV
S. J. Taft, Matron	
C. A. Harrington	
T. W. Case	
Chas, Fillias	
Clas. Fullas	. Waiten
TUSCARAWAS COUNTY.	
Isabel N. Harmount, Matron	.Canal Dover
Dr. E. C. Lewis.	
Andrew Patrick	
T. J. Forbes	
Dr. J. W. S. Goudy	.Newcomerstown
UNION COUNTY.	
E. B. Turner, Superintendent	Magyawilla
F. T. Arthur	
W. H. Loveless	•
Philip Rupright	
Chas. Nicol	
C100. 111.01	. Onionvine Centri
WARREN COUNTY.	
A. D. Strickler, Superintendent	
John A. Bone	
T. E. Ivins	
E. J. Techenor	
J. M. Dill	
J. M. Johnson	
M. J. Hutchinson	Lebanon
WASHINGTON COUNTY.	
J. L. Jorden, Superintendent	Mariett <b>a</b>
S. J. Hathaway	
L. W. Elmwood	
W. F. Robertson	
W. A. Sniffin	.Marietta

#### WAYNE COUNTY.

Jos. Gault, Superintendent	Wooster
J. F. Sears	
W. jarvis	
D. V. Huffman	
A. D. Nets	
fairmount children's	HOME
	•
STARK AND COLUMBIANA C	OUNTIES.
M. M. Southworth, Superintendent	Alliance
Elisha Teeters	Alliance
David Boyce	E. Liverpool
Wm. G. Bently	
J. A. Ranolds	
S C Rowman	~~ ***

## ROSTER OF SUPERINTENDENTS AND DIRECTORS OF COUNTY INFIRMARIES.

#### ADAMS COUNTY.

Name,	Postoffice address. Term e	expires.
	Bentonville, OJanuary	
	West UnionJanuary	
	Blue Creek	
Geo. G. Alli	Blue CreekJanuary	, 1900
	ALLEN COUNTY.	
David Baxter, superintendent	Lima	
E. F. Davis	LimaJanuary	, 1898
Peter Leis	SpencervilleJanuary	, 1899
Eli Mechling	LimaJanuary	, 1900
	ASHLAND COUNTY.	
I W Brindle superintendent	Hayesville	
	McZena	
	AshlandJanuary	
David Wastman	AshlandJanuary	1000
David Weitman	Ashiandjanuary	, 1900
	SHTABULA COUNTY.	
Wm. Whiton, superintendent	Kingsville	
	Kellogsville	
	AshtabulaJanuary	
W. E. Robison	KingsvilleJanuary	, 1890
	ATHENS COUNTY.	
N. W. Baker, superintendent	Chauncey	
	Lee	1897
	Grosvenor	1898
	Marshfield	1899
<b>G</b>		
	AUGLAIZE COUNTY.	
Jacob Bigler, superintendent	Wapakoneta	1000
Thos. M. Elliott	WapakonetaJanuary	, 1898
Teles Person	MinsterJanuary WaynesfieldJanuary	, 1899
John Bowers	waynesneidjanuary	, 1900
	BELMONT COUNTY.	
	Eas Richland	
G. W. Barnes	St. ClairsvilleJanuary	, 1898
	BelmontJanuary	
Otto Rottmeier	East RichlandJanuary	, 1900
	BROWN COUNTY.	
I. N. Jacobs, superintendent	Georgetown	
Jesse Cahill	GeorgetownJanuary	, 1898
	HamersvilleJanuary	
	.GeorgetownJanuary	
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### BUTLER COUNTY.

	BUTLER COUNTY.	
Name.	Postoffice address	Term expires.
Sam. D. Shields, superintendent	Hamilton	
	Hamilton	
G. Overpeck	Hamilton	an. 1, 1899
Elmore Anderson	Hamilton	an. 1, 1900
	CARROLL COUNTY.	
Albert Wagner superintendent	Carrollton	
I D Wair	Carrollton	Tan 1 1808
	Algonquin	
	Levettsville	
william Tope		an. 1, 1000
C	HAMPAIGN COUNTY.	
	Urbana	
	Urbana	
H. Minor	Urbana	an. 1899
Tohn Sexton	King's Creek	an. 1900
	CLARK COUNTY.	
Wm. H. Hughes, superintendent.	Springfield	
	Springfield	
	Springfield	
	Springfield	
A. J. Deck	opringucia	ан. 1, 1000
	CLERMONT COUNTY.	
	Batavia	
	Owensville	
	Goshen	
	New Richmond	
Oto Huber	New Richard	Jan. 1, 1900
	CLINTON COUNTY.	
Ine N Ismes superintendent	Wilmington	
	Sabina	
	Morrisville	
J. D. MOOH	Ogden	an., 1900
CC	LUMBIANA COUNTY.	
	Lisbon	
	Bucks	
	Lisbon	
L. C. Hoopes	Winona	an., 1900
	OSHOCTON COUNTY.	
_		
	Coshocton	
	Tyrone	
	Wakatomika]	
Gabriel Lorenz	Chili	an. 1, 1900
· · · · · · · · · · · · · · · · · · ·	RAWFORD COUNTY.	
•	Bucyrus	
David Hurr	New Winchester	an 1 1808
Philip Rahian	Galion	an. 1, 1000
Auam Feik	Crestline	an. 1, 1900

#### CLEVELAND CITY.

CHATALINE CIT.
Name. Postoffice address. Term expires.  George R. Warden, Director of Charities and Corrections, Cleveland  W. K. Ricksecker, superintendentCleveland
DARKE COUNTY.
T. B. Miller, superintendent       Greenville         L. G. Turner       Hollansburg       Jan. 1, 1898         Fred Trittschuh       Willow Dell       Jan. 1, 1899         John Studabaker       Greenville       Jan. 1, 1900
DEFIANCE COUNTY.
C. W. Phillips, superintendent
DELAWARE COUNTY.
Albert Linn, superintendent
. ERIE COUNTY.
Samuel Irvin, superintendentSandusky       Jan. 1, 1898         J. J. Neil
FAIRFIELD COUNTY.
F. J. Buschmeyer, superintendent. Lancaster  Daniel Tschopp
FAYETTE COUNTY.
S. O. Wilson, superintendent
FRANKLIN COUNTY.
D: D. Tressenrider, supt       Columbus       Jan., 1898         Henry Becker       Columbus       Jan., 1898         Charles Frank       Columbus       Jan., 1899         J. F. Medbery       Reynoldsburg       Jan., 1900
FULTON COUNTY.
C. H. Hartman, superintendentOttokee

### BOARD OF STATE CHARITIES.

### GALLIA COUNTY.

Name.	Postoffice address.	Term expires.
	Gallipolis	
	Patriot	
Ioseph Johnson	Gallipolis	Tanuary, 1990
• • • • • • • • • • • • • • • • • • •	•	. <b></b> ,,
	GRAUGA COUNTY.	
	Chardon	
	Parkman	
	Chardon	
2019 20100		.junuary, 1000
	GREENE COUNTY.	
	Xenia	
	Xenia	
	Xenia	
John W. Smith		January, 1900
C	GUERNSEY COUNTY.	
James Ross, superintendent	Love City	
	Galligher	
	LoveCity	
Robert Lowey	Love City	January, 1900
1	AMILTON COUNTY.	
	itCarthage	
	Harrison	
	Carthage	
		,, 2000
	HANCOCK COUNTY.	
R. I. Moffit, superintendent	Findlay	
	Findlay	
	McComb	
		,, ,
	HARDIN COUNTY.	
John Wilson, superintendent	Kenton	T 1000
	Hepburn	
	Kenton	
	HARRISON COUNTY.	
	Cadiz	
James M. Hines	Moraville	.january 1, 1898 .Tanuary 1 1800
David Christy	Deersville	January 1, 1900
-		

### HENRY COUNTY.

Name.	Postoffice address.	Term expires.
	Napoleon	
	Napoleon	
C. H. Dittmer	Ridgeville	
George Vogel	Milton Center	
1	HIGHLAND COUNTY.	
	Hillsboro	
	Hillsboro	
	Carmel	
C. L. Mullovin	Bell	January 1, 1900
	HOCKING COUNTY.	
	LoganSmock	
	Haydenville	
	Gove	
<b>G</b>		<b>,</b>
	HOLMES COUNTY.	
	Holmesville	
	Millersburg	
	Benton	
David Fites	Pictoria	January 1, 1900
	HURON COUNTY.	
J. L. VanDusen, superintendent.	Norwalk	
Peter W. Kuight	Roughtonville	January 1, 1898
	Bellevue	
I, J. Woodward	Norwalk	January 1, 1900
	JACKSON COUNTY.	
G. W. Harbarger, superintendent.	Jackson	
	Coalton	
	Jackson	
	Clay	
<b>T</b>	EFFERSON COUNTY.	
•	Wintersville	
Rayter Cunningham	Fernwood	• • • • • • • • • • • • • • • • • • • •
	Wintersville	
	Steubenville	
	KNOX COUNTY.	
		•
	Bangs Station	
	Milforton Mt. Vernon	
Tacob Baker	Millwood.	January 1, 1999 January 1, 1900
<b>J</b>		,, <u>-,</u>
	LAKE COUNTY.	
	Painesville	
	Willoughby	
	Parnesville Perry	
щ. м. маU1113	C J	January 1, 1900

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### LAWRENCE COUNTY.

Name.	Postoffice address.	Term expires.
	Ironton	
	Sybene	
A. N. Stewart	Sherritts	Jan. 1, 1899
M. J. Cullen	Ironton	.Jan. 1, 1900
A 73 7	LICKING COUNTY.	
	Union Station	
	Newark	
	Pataskala	
N. C. Brown	Union Station	.jan. 1, 1900
	L'OGAN COUNTY.	
W. S. Black, superintendent	Bellefontaine	
	Logausville	
	Belle Center	
	Bellefontaine	
	LORAIN COUNTY.	
	Elyria	
M. B. Peabody	Amherst	Jan. 1, 1898
	Grafton	
Frank Snell	Columbia	Jan. 1, 1900
	LUCAS COUNTY.	
W D Wilson superintendent	Toledo	
	Swanton	
The Cross	Toledo	January, 1090
	ToledoToledo	
Heiman Baumoach	I Oledo	January, 1800
	MADISON COUNTY.	
Chas. Bennett, superintendent.	London	
John Price	Plain City	.January, 1898
Jacob Johnson	La Fayette	January, 1899
Henry Kilgore	London	.January, 1900
•	MAHONING COUNTY.	
	ntCanfield	
	Boardman	
	Youngstown	
R. E. Howard	Elsworth Station	.January, 1900
	MARION COUNTY.	
	Marion	
	Marion	
	Martel	
Elias Furstenberger	Marion	• ••••••
	MEDINA COUNTY.	
Oilbant Laurainter 1- 1		
	Whittlesey	
	Medina	
Tomic Tooks	Liverpool	J&D. 1, 1888
цеwis цоепт	Acme	
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## MEIGS COUNTY.

R. R. Lyman, superintendentPomeroy	January, 1898 January, 1899
MERCER COUNTY.  Michael Reusche, superintendentCelina	
Cornelius Boune, superintendent. Troy	January, 1898 January, 1899
MONROE COUNTY.  Joe Taylor, superintendentWoodsfield  A. ReichWoodsfield  I. M. ConleyMt. Carrick  Jacob WilsonCameron	1898 1899
MONTGOMERY COUNTY.	
Luther M. Bryant, superintendentDayton	Jan. 1, 1898 Jan. 1, 1899
MORGAN COUNTY.	
A. D. King, superintendentMcConnelsville  Jesse GoffordPennville  Chas. R. BrentMcConnelsville  Eli BurrMcConnelsville	January, 1898 January, 1899
MORROW COUNTY.	
S. T. Rhodebeck, superintendentMt. Gilead	Jan. 1, 1898 Jan. 1, 1899
MUSKINGUM COUNTY.	
John H. Mangold, superintendentZanesville	January, 1898 January, 1899
NOBLE COUNTY.	
W. J. Kirkbride, superintendentSarahsville  D. N. BrownDexter City  Arch OsborneSummerfield  Sylvester ReedMt. Ephriam	•••••••••••

#### OTTAWA COUNTY.

Name.	Postoffice address.	Term expires.
	t.Oak Harbor	
S. C. Williams	Locust PointJa	ın., 1898
Lewis Mackey	Port ClintonJa Elmore Ja	in., 1899
John N. Magee	Elmore Ja	ın., 1900
	TANK DANG GOVERNMEN	
	PAULDING COUNTY.	
Jos. Kinney, superintendent	Paulding	
	ıtCecilJ	
	Grover HillJ	
John Shack	JunctionJ	anuary 1, 1900
	PERRY COUNTY.	
Levi H. Kennedy, supt	New Lexington	
	SomersetJa	
Jerry Donley	New Straitsville	n., 1899
Geo. Thompson	Shawnee	an., 1900
•	•	•
	PICKAWAY COUNTY.	
S. M. Yates, supt	Circleville	
	CirclevilleJ	
R. H. Trimble	Circleville	an., 1899
	CirclevilleJa	
	<b>.</b>	,
	PIKE COUNTY.	
I. H. Cussins, supt	Idaho	
Wm. Taylor	LathamJs	ın., 1898
	Omega	
	Camp P. O	
	•	
	PORTAGE COUNTY.	
	Ravenna	
	Mantua StationJ	
	Kent	
W. B. Phillips	RavennaJ	anuary 1, 1900
	PREBLE COUNTY.	
	Eaton	
J. R. Burson	Eaton	an., 1898
N. T. Lawrence	Eldorado	an., 1899
James Gard	Eaton	an., 1900
	DUMBLAR AATIMU	
	PUTNAM COUNTY.	
Jas. Ridge, supt	Ottawa	
John W. Summers	KalidaJ	anuary 1, 1898
r. w. Snerman	Belmore	anuary 1, 1899
jas. Williams	Vaughnsville	anuary 1, 1900
	RICHLAND COUNTY.	
B. F. Palmer, supt	Mansfield	
	Butler	
	Mansfield	
	Plymouth	
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### ROSS COUNTY.

John M. Warner, supt       Chillicothe       Jan., 1898         Geo. McCorkle       Pride       Jan., 1899         E. E. Hough       Halltown       Jan., 1899         Geo. W. Garrison       Chillicothe       Jan., 1900
SANDUSKY COUNTY.
G. W. Hess, supt       Fremont         Jacob Engler       Fremont       Jan., 1898         R. H. Skinner       Fremont       Jan., 1899         M L. Huss       Clyde       Jan., 1900
SCIOTO COUNTY.
E. H. Wishorn, supt
SENECA COUNTY.
M. L. Van Tilburg, supt.       Tiffin         J. L. Arnold.       Fostoria       Jan., 1898         J. M. Bowser       Tiffin       Jan., 1899         J. L. Johns       Tiffin       Jan., 1900
SHELBY COUNTY.
Harvey Guthrie, supt       Sidney         Samuel Wright       Jan., 1898         Geo. Meaker       Jan., 1899         L. G. Simes       Plattsville       Jan., 1900
STARK COUNTY.
John C. Gerwig, supt
SUMMIT COUNTY.
S. B. Stotler, supt
TRUMBULL, COUNTY.
H. H. Pierce, supt       Warren         Curtis Hall       Fowler       Jan., 1898         A. P. Kepner       Hartford       Jan., 1899         J. Jones       Girard       Jan., 1900
TUSCARAWAS COUNTY.
F. E. McFadden, supt

## UNION COUNTY.

J. W. Southard, supt
VAN WERT COUNTY.
J. J. Hanby, supt.       Van Wert         A. Woten.       Wetsel       Jan., 1898         W. A. Baxter.       Delphos       Jan., 1899         Mr. Mullenkopt.       Convoy       Jan., 1900
VINTON COUNTY.
L. I. Thorp, supt.       McArthur         E. Swepston       Allensville       Jan., 1898         Lafa Ward       Dundas       Jan., 1899         W. E. Tucker       McArthur       Jan., 1900
WARREN COUNTY.
A. D. Smith, supt
WASHINGTON COUNTY.
G. F. Reed, supt.       Marietta         G. W. Richards       Jan., 1898         Wm. Cranston       Heslop       Jan., 1899         Wm. Schnanfer       Marietta       Jan., 1900
WAYNE COUNTY.
R. D. McIntire, supt
WILLIAMS COUNTY.
Frank Elder, supt
WOOD COUNTY.
Edwin Farmer, supt

### EXECUTIVE DOCUMENTS.

### WYANDOT COUNTY.

Frank Shumaker	Upper Sandusky	
	Upper Sandusky	
	Upper Sandusky	
Louis Wagner	Kirby	Jan., 1900
· -	-	
	CINCINNATI CITY.	
Edward Bogen		• • • • • • • • • • • • • • • • • • • •
Aug. Herman	Cincinnati	
Geo. Sterrett	Cincinnati	
John B. Washburn	Cincinnati	
John Frey	Cincinnati	

## BOARD OF STATE CHARITIES.

## 1) ETAILED ACCOUNT OF EXPENSES. NOVEMBER 15 TO DECEMBER 31, 1895.

Dat	te.	Salary and expenses.	Amount.	Total.	
Dec.	14	W. T. Henderson, salary	\$25 00	<b>\$</b> 25	00
DCC.		Fred Schaub, janitor	10 00	10	
		Jos. P. Byers, salary and expenses—			•
Nov.	19	Trip to Cleveland, sleeper, and street cars	1 85		
	22	Hotel and meals and street cars	3 40		
Dec.	2	Trip to Cincinnati, hotel and street cars Trip to Zanesville, hotel, street cars and	2 35		
			3 10		
	6	livery Trip to Dayton, dinner and street cars	60		
	7	Hotel and street cars	1 85		
	•	Salary	50 00		
		<i>Data2</i> y		63	15
	19	M. D. Follett, expenses Nov. 13-15, Dec. 16-18-		-	
Nov.	13	R. R. to and from Columbus, hotel and			
		meals	12 10		
Dec.	16	R. R. to and from Columbus and Cleveland,			
		hotel	17 20		
				29	40
	19	Jas. L. Wilson, expenses to Cleveland, Dec. 16-18,	17 10	15	•
		R. R., hotel and sleeper	17 10	17	10
		R. R., hack and hotel	9 65	0	65
		Chas. Parrott, expenses, Oct. 15-18, Dec. 16-18—	9 00	9	oo
Oct.	18	R. R. and hotel, Delaware, S. C. of C. & C	7 75		
Dec.	18	R. R. and hotel, sleeper and lunch, Board			
		meeting at Cleveland	14 05		
		, , , , , , , , , , , , , , , , , , , ,		21	80
	19	Western Union Telegraph Co., services	1 10	1	10
		E. H. Sell, T. W. supplies	5 20		20
		Turner Bros., office supplies			50
		U. S. Express Co., services	1 38		38
		Wells, Fargo & Co., express services		1	27
		American Express Co., services		00	30
		W. H. Fisher, agent, Buckeye mileage	20 00 20 00	20	
		J. H. Smith, Penna. mileage	25 00 25 00	20 25	
	21	E. Cook & Bros., copies of Dispatch	1 80		80
	31	W. T. Henderson, salary	25 00		00
	٠.	Jos. P. Byers, salary and expenses—	200	20	•
	16	Trip to Cleveland, cab, R. R., sleeper, street			
		cars, hotel, and salary	56 85	56	8
			1	\$337	60

## EXECUTIVE DOCUMENTS.

## DETAILED ACCOUNT OF EXPENSES—Continued. JANUARY 1 TO 31, 1896.

Date.	Salary and expenses.	Amount.	Total.
1896.			
Jan'y 6	F. M. Senter, P. M. box rent one quarter	\$2 00	\$2 0
15	W. T. Henderson, salary	25 00	25 0
15	Jos. P. Byers, salary and expenses—	i	
1	Trip to Dayton, hotel and livery and street		
	car, cabs	5 15	
2	Supper	75	
15	Salary	50 00	
			55 9
15	C. U. Telephone company services		16 3
15	W. U. Telegraph company services	1 44	14
15	Monfort and Williamson altering electric		10.0
	lights 8 L. cluster	12 00	12 0
15	American Express company services	1 20	1 2
15	Fred Schaub, janitor	10 00	10 0
31	J. M. Glenn, treasurer, 120 copies of proceed-	135 00	135 0
31	ings of N. C. of C. T. C	25 00	25 0
81	W. T. Henderson, salary	20 00	20 0
21	Hack and railroad to Columbus, dinner	2 90	
22	Hotel at Columbus.	3 00	
22	Railroad to Chillicothe and Athens, dinner	3 80	
$\frac{\overline{24}}{24}$	Railroad to Columbus and Mansfield, dinner	0 00	
	and hack	5 20	
			14 9
31	Jos. P. Byers, salary and expenses—	l	-
17	Street cars	20	
22	Trip to Athens, railroad to Chillicothe, street	1	
	cars and dinner	2 25	
28	Expenses meeting of superintendents of		
	state hospitals, street cars	30	
29	Paid for extra clerk hire	5 00	
31	Salary	50 00	
			57 7
31	J. L. Milligan, proceedings N. P. association	20.00	<b>5</b> 0 0
	for 1895	30 00	30 0
			\$416 4

## DETAILED ACCOUNT OF EXPENSES—Continued. FEBRUARY 1 to 29.

Date.	Salary and expenses.	Amount.	Total.	
Feb. 15	W. T. Henderson, salary	\$25 00	\$25	
	Fred Schaub, janitor	10 00	10	
	F. W. Herbst, office supplies	5 90	5	90
	McAllister & Muhler, two desks, two chairs and	}		
	repairs	70 25	70	25
	J. K. McDonald, livery to date	6 00		00
	A. H. Smythe, office supplies	14 05	14	
	Adams Express Co, services	60		60
	Troy Laundry, services	84		84
	Wells-Fargo Co., services	70	_	70
	Sanitary Plumbing, services	4 05	4	05
	W. U. Telegraph Co., services	83		83
	American Dist. Telegraph Co., services	15		15
	Jos. P. Byers, salary and expenses—			
	Trip to Mansfield and Ashland, hotel and	9.00		
	meals, street cars	3 60		
	Trip to Perry Co., meals, street cars, livery,	50		
	railroad and bus	3 40		
15	Salary	50 00		
10			57	50
	F. M. Senter, P. M., postage	<b>\$</b> 50 00	50	
	Spahr & Glenn, printing advanced sheets	7 50	7	50
	E. P. Ewing, shelving for office	27 00	27	00
27	W. H. Neff, expenses board meeting, Feb. 26			
	and 27, railroad and hotel	12 00	12	00
29	Jos. P. Byers, salary and expenses—	Ī		
14	Trip to Gallipolis, street cars, hotel and			
	supper	2 15		
24	Trip to Delaware, street cars and meals	1 20		
25	Trip to Bowling Green and Toledo, meals,			
	cab, railroad, street cars and telegraph	1 90		
	Trip to Sandusky, street cars, meals and	0.00		
	hotel	2 10		
	Salary	50 00		
	W T Handaman salam	*05 OO	57 95	
	W. T. Henderson, salary	\$25 00	25	50
	E. H. Sell, T. W. supplies	1 50	1	υŪ
	26-28, railroad, hotel, bus and meals	12 55	12	55
			\$388	77

## EXECUTIVE DOCUEENTS.

## DETAILED ACCOUNT OF EXPENSES—Continued. MARCH 1 TO 31, 1896.

Dat	te.	Salary and expenses.	Amount.	Total.
Mar.	9	M. D. Follett, expenses to Athens Jan., 22, 24,		
		and board meeting Columbus Feb. 26, 28—		
Jan.	22	Trip to Athens, railroad fare	<b>\$</b> 2 80	
Feb.	26	Trip to Columbus, R. R., hotel and st. cars	15 00	
	_			\$17 8
Mar.	9	J. L. Wilson, trip to Columbus and Athens-		
Jan.	23	Trip to Athens, railroad and bus	5 40	
Feb.	26	Trip to Columbus, railroad and hotel	10 20	<b>€</b> 15 €
Mar.	14	Jos. P. Byers, salary and expenses—		<b>\$</b> 15 6
ша.	2	Trip to Lucas Co., st. cars, R. R., dinner and		
	-	hotel	3 05	
	5	Trip to Cincinnati, street cars and railroad	55	
	4	Trip Cleve., hotel and st.cars (with H.H.Hart)	4 00	
	6	Street cars, supper, sleeper and breakfast	2 80	
	12	Trip to Lancaster, cab, dinner and st. cars	80	
	14	Salary	50 00	
				\$61.2
	14	W. T. Henderson, salary	25 00	25 0 10 0
	14	Fred Schaub, janitor	10 00	20 0
	14 31	Arthur Goldstein, agent B. and O., mileage	20 00	20 0
	17	Jos. P. Byers, salary and expenses— Trip to Washington, D. C., Phila., N. Y., and	ŀ	
		Penna, institutions, sleeper to Washing-		
		ton, D. C. and street cars	3 30	
	20	Street cars, meals, telegraph and hotel	10 80	
	21	Hotel, meals, street cars, Balto	4 20	
	21	R. R., Washington to N. Y., dinner and st		
		cars	3 80	
	23	Hotel N. Y., meals and street cars	9 65	
	23	R. R. to Phila., teleg., trip to Hoboken, N. J.	3 46	
	23	St. cars, Philadelphia	30	
	24 25	R. R. to Norristown, street cars and telegraph	1 60	
	ZO	Railroad to Chester, Media, West Chester and	1 65	
	25	Philadelphia	1 00	
	20	livery and meals	3 35	
	26	Visiting institutions, railroad, street cars,	• • •	
		Norristown	85	
	26	Hotel, Philadelphia	16 65	
	26	Railroad and sleeper to Huntingdon	8 33	
	27	R. R. and sleeper, Pittsburg, meals, st. cars.	5 77	
	28	Hotel, Pittsburg, railroad to Columbus, din-		
		ner and cab	9 50	
	31	Salary	50 00	<b>A100 0</b>
	31	W T Handerson salary	25 00	<b>\$</b> 133 2
	17	W. T. Henderson, salary	20 00	
	17	Railroad to Col., hotel, telegraph and st. cars	8 10	
		Railroad to Washington, sleeper and meals.	16 75	
•	21	Hotel, Washington, D. C., railroad to Phila.,		
		N. Y., meals and street cars	23 34	
	23	Railroad to Philadelphia	2 50	
	20	Main out to I minucipalian	2 00 1	

## DETAILED ACCOUNT OF EXPENSES—Continued. MARCH 1, TO 31, 1896—Concluded.

Date.	Salary and expenses.	Amount.	Total.
24-26	Railroad to Washington and return to Phila,		•
	carriage and dinner	<b>\$8 64</b>	
26	Hotel, Philadelphia	15 35	
26	Railroad to Huntington and Pittsburg,		
	sleeper and meals	13 85	
28	Hotel Pittsburg, railroad, Mansfield and bus	. 7 75	
			\$97 58
İ			\$405 39

## DETAILED ACCOUNT OF EXPENSE—Continued. APRIL 1 TO 30, 1896.

Date	Salary and expenses.	Amount,	Total.
April	5 W. T. Henderson, salary	\$25 00 10 00	\$25 00 10 00
	Trip to Cincinnati and Georgetown, cab, sleeper and street car, meals, livery to Defiance and Ripley and railroad to Cin-		
	cinnati via B. & O	8 40	
	2 Hotel, street cars to Cincinnati	3 20	
		2 30	
	Railroad map	20	
	9 Trip to Tuscarawas county, hotel, livery,	20	
	street cars, meals	1 65	
:	1 Hotel Uhrichsville, and street cars	1 00	
	Salary	50 00	
	Postage	25 00	
	E D Division of		97 20
•	5 R. Brinkheroff, expenses board meeting April 14-15, railroad, hotel, meals and bus	9 65	9 65
	J. Wilson, expenses board meeting April 14-15,	8 00	<b>a</b> 00
	railroad and hotel	6 70	6 70
	6 Wells-Fargo Co. Ex., services	4 26	4 26
	W. U. Tel. Co., services	9 21	9 21
	Am. Dist. Tel. Co., services	95	95
	Col. Transfer Co., services	4 02	4 02
	F. M. Senter, P. M, P. O. box rent	2 00	2 00
	C. U. Telephone Co., services	15 25	15 25
	Adams Ex. Co., services	45	45
	J. M. Smoots & Co., one set cushion keys for T.W. Chas. Parrott, expenses Athens Jan. 22-24 and	3 50	3 50
•	Xenia March 20-21—	1	
Jan.	2 Railroad to Athens, and meals	6 00	6 00
Mar.	0 " Xenia, and meals	4 10	4 10
April 2		75 00	75 00
_	W. T. Henderson, salary	25 00	25 00
	Jos. P. Byers, salary and expenses—		
	Trip to Cleveland, sleeper and cab	2 00	
•	7 Street cars and hotel	4 95 2 60	
1	0 Salary	50 00	
•	-		59 55
		-	\$357 84

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## EXECUTIVE DOCUMENTS.

# DETAILED ACCOUNT OF EXPENSES—Continued. May 1 to 31, 1896.

Da	te.	Salary and expenses.	Amount.	Total.	
		Jos. P. Byers, salary and expenses—			
May	15	Trip to Iberia, R. R. for Henderson, hotel,	• 10	1	
		livery, street car fare, lunch	<b>\$</b> 7 10		
	.6	Trip to Iberia, meals and street cars	1 40		
	11 15	Trip to Iberia, meals, bus, R. R., from Galion Salary	3 65 50 00	A Company of the Comp	
	10	Salary		1	
		W. T. Henderson, salary	25 00	\$62	
		Fred Schaub, janitor	10 00	1 20	00
	15	A. M. Byers, extra clerical service to May 1st	30 00		00
		F. M. Senter, P. M., postage	100 00		
		Cherington Printing Co., rubber stamps	1 75	1 100	75
-		D. S. Wilder, agent Big Four, mileage	20 00		00
	20	F. W. Herbst, office supplies	8 40		40
		Perry Smythe, picture hooks	85	1	35
		O. Brown Livery Co., services	6 50	, A	50
		Sanitary, plumbing services	1 70		70
		Postai Telegraph Co., services	43	-	43
		American Express Co., services	99	1	99
		Wells-Fargo Co., services	1 00		00
		J. R. Hughes, one traveling case			00
		W. U. Telegraph Co., services	4 44		44
		Adams Express Co., services	1 15	1	15
		Central Union Telegraph Co., services	45	1	45
	<b>3</b> 0	W. T. Henderson, salary	25 00	] 20	00
		A. M. Byers, extra clerical services	25 00	25	00
	15	Jos. P. Byers, salary and expenses—		1	
	10	Trip to Iberia, meals and street cars, livery	3 20	1	
	19	and messenger	3 20 15	i	
	20	Trip to Iberia, meals and livery	2 50	}	
	20	Hotel Newark, and bus	1 25	1	
	22	Trip to Cadiz, meals and telegraph	3 75	1	
	30	Salary	50 00	1	
				<b>\$60</b>	85
				ļ	
		·		\$398	16

### BOARD OF STATE CHARITIES.

## DETAILED ACCOUNT OF EXPENSES—Continued. June 1 To 30, 1896.

Date	Salary and expenses.	Amount.	Total.
189	* _ I		
June	3 F. M. Senter, P. M., postage	<b>\$50</b> 00	\$50 00
	Jos. P. Byers, salary and expenses, trip to Grand Rapids and Columbus—		<b>300</b> 00
	3 Dinner and cab	1 25	
	4 Supper and street cars, Toledo	90	
	4 Railroad to Grand Rapids and return 4 Parlor car meals and bus at Detroit	7 18   1 25	
	Parlor car, meals and bus at Detroit 9 Telephone to Columbus	2 75	
	10 Hotel and bus	19 65	
	Bus and parlor car to Detroit	50	
	11   Hotel	3 00	
	Meals, railroad and cab, Columbus	2 00	
	15 Salary	50 00	00.40
			88 48
	15 Fred Shaub, janitor	10 00	10 00
	15 W. T. Henderson, salary	25 00	• •
	15 A. M. Byers, clerical services, extra	20 00	20 00
	7 R. Brinkerhoff, expenses to Grand Rapids—		
	Bus, railroad to Grand Rapids and parlor	į	
	car	8 45	
	7   Pt. Wayne	25	
	Hotel and sleeper to Grand Rapids and bus	4 00	
	8 Hotel	10 75   8 23	
	Bus, railroad to Mansfield via. Toledo, bus	0 20	31 68
	M. D. Follett, expenses. March 11, 12, April 9,	i	,52 55
	22, 25, May 2, 12—		
Mar.	Lip to combab, imiliona and notes	10 45	
	22 Trip to Washington, D. C., railroad, street	11 05	
June	car and hotel	11 05	
June	baggage	18 25	
	12 Street cars, hotel and railroad and sleeper	28 52	
			82 92
	9 Chas. Parrott, expenses to Grand Rapids— Railroad chair car and sleeper	20 00	
	Railroad chair car and sleeper	1 60	
	Hotel, meals, and baggage	19 88	
			41 48
		-	2940 54
			\$349 56

## EXECUTIVE DOCUMENTS.

## DETAILED ACCOUNT OF EXPENSES—Continued. JULY 1 TO 31, 1896.

Dat	te.	Salary and expenses.	Amount.	Total.
July	31	W. T. Henderson, salary	\$25 00 20 00	25 00 20 00
		Services cleaning office and carpets	10 00	10 00
		26; Athens Hospital, June 24-25; Boys'i Industrial School June 25-26, R. R., meals		
		and cab	14 40	14 40
		A. H. Smythe, office supplies	5 00	5 00
		W. U. Telegraph Co., services	7 99 2 00	7 99 2 00
		To N. C., C. & C., Grand Rapids, Mich., R. R. fare	20 25	
		Hotel and meals	16 75	
		H. P. Pflueger, telephone directory	2 00 40	37 00 2 00 40
June	16	Jos. P. Byers, salary and expenses— Expenses to Chicago, Children's Home So-		
June		clety, sleeper, cab and bus	3 00	
July	18	Hotel, meals and street cars	8 90 7 45	
	22	Sleeper to Cincinnati, cab and supper—State		
	23	Board Conference	3 00 1 15	
	24	Street cars and meals	1 85	
		Sleeper to Chicago and street cars	2 35 5 10	
	26	Hotel, street cars and meals. R. R	12 40	
	29 30	Trip to Clevland, hotel	2 00 1 80	
	•	Salary	50 00	
		Wells, Fargo & Co., express services	14 93	99 00 14 98
		Adams Express Co., services	12 57	12 57
		American Express Co., services	11 59 43 36	11 59 43 86
		W. T. Henderson, salary	25 00	25 00
	15	R. Brinkerhoff, expenses board meeting, July 12-15—		
		Hack, R. R. and street cars	2 55	
	17	Hotel, R. R., supper and hack	9 90	12 4
		Fred Schaub, services	10 00	
	18 3	Jos. P. Byers, salary and expenses— Trip to Marion and Mansfield, R. R., street		
	•	car and dinner	2 25	
	4	Supper, sleeper to Columbus and street cars	2 35	
	14 15	Dinner for self and Messrs. Brinkerhoff and Wilson	65 1 65	
		Trip to Toledo and Cleveland, chair car, sup- per and street cars		
	17	per and street cars	1 15	

## DETAILED ACCOUNT OF EXPENSES—Continued. JULY 1 TO 31, 1896—Concluded.

Date.	Salary and expenses.		ıt.	Total.	tal.	
18	Jos. P. Byers, salary and expenses—Continued—Street cars and dinner, sleeper to Columbus and street cars.  Salary, Penna. & B. O. mileage		10 00		_	
15	C. U. Telephone Co., services	16	55	\$105 16		
10	C. T. Phillips, cleaning office paper and walls		(0)		00	
	Adams Express Co., services		80		80	
	Wells-Fargo Co. express services		18		18	
	L. W. Buckmaster, Buckeye mileage	20	00	20	00	
21	American Express Co., services	2	28	2	28	
	E. H. Sell, T. W. supplies	7	90	?	90	
31	W. Henderson, salary	25	00	25	00	
	W. U. Telegraph Co., services	9	74	9	74	
	Hospitals	4	00	4	00	
	Jos. P. Byers, salary	50	00	50	00	
	ľ			624	09	

## DETAILED ACCOUNT OF EXPENSES—Continued. AUGUST 1 TO 31, 1896.

Dat	te.	Salary and expenses.	Amount.		Total.		
Aug.	15	W. T. Henderson, salary	\$30	00	,	830	00
6-		Fred. Schaub, janitor and keeping office		00			00
July	21	Jos. P. Byers, salary and expenses— Trip to Allegheny, Pa., street cars and meals	1	10			
•		Street cars and hotel, Pittsburg		95			•
	22	Sleeper and breakfast		75			
May	15	Salary		00		' 54	80
		W. U. Telegraph Co., services	4	31			31
		C. U. Telephone Co., services		25			25
		J. L. Wilson, expenses, Cincinnati, June 25, Columbus, July 14—		İ			
June			_				
July	14			90			
_		R. R. and hotel, board meeting, Columbus	8	35			
			100				25
Aug.		F. M. Senter, P. M., postage		00		100	
	31	W. T. Henderson, salary		00			00
		A. M. Byers, clerical services, extra		00		15	00
		Jos. P. Byers, salary	50	00		50	00

### EXECUTIVE DOCUMENTS.

## DETAILED AMOUNT OF EXPENSES—Continued. SEPTEMBER 1 TO 30, 1896.

Total.	Amount.	Salary and expenses.	Date.	
<b>\$</b> 3 5	\$3 50	Taylor Bros., Cleveland, office stamps, (2)	Sept. 1	
3 0	3 00	Dunn, Taft & Co. office towels		
3	35	Wells, Fargo & Co., express services		
8	80	U. S. Express Co., services	10	
1 2	1 20	Troy Laundry Co, services		
		F. C. Donald, commissioner C. T. A.—		
11 0	11 00	Expenses, special agent for Xenia Conf		
50 0	50 00	F. M. Senter, P. M., postage		
49	43	Adams Express Co., services		
1 6	1 66	W. U. Telegraph Co., services		
10 5	10 60	Columbus Express, ptg. letter heads & circulars		
		R. Brinkerhoff, expenses visit'g institutions—		
	2 50	R. R. to Columbus and hack	Aug. 31	
	9 65 ¦	Hotel, cab and R. R. to Gallipolis	Sept. 2	
		R. R. to Athens, Lancaster, Zanesville and		
	5 10	Newark	_	
10.0	2 10	R. R. to Mansfield and hack	5	
19 3				
30 0	30 00	W. T. Henderson, salary	15	
10 0	10 00	F. W. Schaub, services		
		Jos. P. Byers, salary and expenses—		
	1 20	Trip to Batavia, st. cars, livery and hotel	Aug. 20	
	85	Trip to Xenia, cab, st. cars and supper	22	
	80	Trip to Sandusky, st. cars and meals	24	
	2 05	Trip to Jackson, hotel, livery, st. cars &din.	28	
	0.00	Trip to Lancaster and Circleville, meals,	29	
	2 80	livery, st. cars, bus	15	
•	i	Trip to Gallipolis, Athens, Lancaster and	15	
		Zanesville, meals, chair car, telegraph		
	1 85	and street cars	- 11	
	50	Cab to penitentiary	11	
60 04	50 00	· Salary	15	
00 W		M D Pollett amounts minister tratituding	June 20	
		M. D. Follett, expenses visiting institutions,	June 20	
	19 75	Cincinnati, Athens, and Lancaster—	26	
	18 70	R. R. fare, hotel and bus	Aug. 13	
	İ	Visiting Eastern institutions, Sing-Sing prison,	22	
		Long Island Hospital, Hudson River Hospital and others	22	
	40 69	R. R. fare to Marietta and return		
	12 80			
72 74	12 00	Hotel expenses		
12 17		<u>.</u>		
294 5	ı			

## BOARD OF STATE CHARITIES.

## DETAILLED ACCOUNT OF EXPENSES—Continued. OCTOBER 1 TO 31, 1896.

Da	te.	Salary and expenses.	Amount.	Total.
Oct. Sept.	. 17	Jos. P. Byers, salary and expenses— Trip to Lima and Van Wert, dinner, street	\$ 90	
1	18	cars and bus  Hotel Lima, bus  Hotel and livery, Van Wert	2 50 2 00	
	21	Railroad to Piqua, supper enroute and cab	2 60 1 85	
	23	Trip to Cleveland, sleeper and street cars  Hotel and street cars	3 70	
	24 25	Meals and chair car	1 75	
	26	road fare from Hicksville  Breakfast and street cars to Chicago  Railroad to Milwaukee, dinner, chair car	7 60 95	
	80	and bus	4 15 16 15	
		Trip to Oshkosh and return and baggage Railroad to and supper at Chicago	40 3 55	
	1	Railroad to Hicksville, sleeper and porter	7 35	
		Cab Salary	50 00	#105 70
		W. T. Henderson, salary F. M. Senter, P. M., P. O. box rent	80 00 2 00	\$105 70 30 00 2 00
		Telegraph Co., services	25	25
		C. U. Telephone Co., services	15 45 6 00	15 45 6 00
	6	American Express Co., services	30	30
	21 25	Cab and railroad to Chicago, sleeper and bus.	10 50 17 65	
0-4	26	Hotel and street cars	3 05	
Oct.	1	Hotel, street cars and tus	28 25 3 55	•
	2	Railroad to Mansfield, bus, sleeper and hack	9 95	
	6	Adams Express Co., services	1 65	72 95 1 65
		W. U. Telegraph Co., services	4 10 4 19	4 10 4 19
	14	F. M. Senter, P. M., postage	50 00	50 00
	28	Railroad and sleeper to Milwaukee, meals	15 40	
	1	and street cars Hotel	15 40 9 00	
		Railroad to Columbus, Pullman, meals and bus	13 65	
	15	R. Brinkerhoff, expenses C. of C. and C. at		38 05
	12	Xenia, Ohio— Hack and railroad to Columbus and dinner	2 90	
	13	Hotel and street cars	3 10 1 85	
	16	Hotel and railroad to Columbus, chair cars Railroad to Mansfield, dinner and hack	6 80 3 15	
	15	W. T. Henderson, salary	30 00	17 80 30 00
		Fred Schaub, services	10 00   20 00	10 00 20 00

### EXECUTIVE DOCUMENTS.

# DETAILED ACCOUNT OF EXPENSES—Concluded. OCTOBER 1 TO 31, 1896.

Da	te.	Salary and expenses.	Amount.	Total.
Oct	15	Jos. P. Byers, salary and expenses—		
	ī	Trip to Hamilton, street cars, railroad,		
		Dayton to Hamilton	<b>\$</b> 1 05	
	2	Bus and hotel, Hamilton	2 25	
		Railroad to Dayton and street cars	1 10	
	3	Bus at Xenia, dinner and street cars	1 05	
	7	Trip to Cincinnati, sleeper and cab	2 00	
	9	Street cars and hotel	6 90	
		Dinner en route and street cars	1 05	
	13	Expenses for self and clerk at Xenia state conference, railroad and hotel	18 35	
	17	Telegrams, livery, cab, typewriter and		
		street cars	4 20	
		Salary	50 00	40= 4
	00		40.00	\$87 9
	20	Jos. P. Byers, Buckeye and B. & O. mileage	40 00	40 (
		Chas. Parrott, expenses state conference, Xenia—	0.00	
	13	Railroad to Xenia and return	2 20	
	16	Hotel and hack	4 50	
	01	777 M 77-1-1-1-1	90.00	6 7
	31	W. T. Henderson, salary	30 00	30 (
		Jos. P. Byers, salary	50 00	50 (
				623 (
		Total for the year	-	\$4,510

## APPENDIX A.

FEEBI,E-MINDEDNESS AS AN INHERITANCE.

ERNEST BICKNELL, Indianapolis, Ind.

### FEEBLE-MINDEDNESS AS AN INHERITANCE.

#### ERNEST BICKNELL, INDIANAPOLIS, IND.

From the first generation of feeble-mindedness in any direct line of descent, we look back for explanation to complex influences which in themselves have no apparent relation to the result reached. For each subsequent generation of feeble-mindedness, in the same direct line, we find explanation in the feeble-mindedness of the parent. The intention at this time is to consider especially second and subsequent generations of mental deficiency, without endeavoring to grapple with the perplexing first causes.

No one, on first giving thoughtful attention to the prevalence of feeble-mindedness, but experiences a shock of surprise and horror at the facts which unfold before him. With every advance they grow more appalling. Ninety-five thousand feeble-minded persons in the United States; in Illinois, 5,249; in Chicage, 2,500; in Indiana 5,568; in Indianapolis, 230; in Ohio, 8,235; in Cincinnati, 460; in Michigan, 3,218; in Grand Rapids, 160; provision for only 6,000 of this great host in proper institutions; poor houses crowded; the ranks of vagrancy multiplied; vice and crime battening to satiety on helpless victims. From the knowledge springs the inevitable question, "Can anything be done to prevent the perpetuation and spread of feeble-mindedness and to remedy the arising evils from what already ex-Before we can answer we must obtain a knowledge of the causes and manifestations of feeble-mindedness through investigations and com parisons. It is probable that only the slow remedy of long years of higher standards of living, can reach the causes which produce the first generation of mental deficiency appearing in any family. But if experience has demonstrated that there is danger of the first feeble-minded member of any family becoming the originator of a line of descendants characterized by the same defect, it would undoubtedly be possible to prevent such a result by denying to this person the opportunity to reproduce his kind. If, further, it can be proved that actually a large proportion of the feeblemindedness of the country is inherited from feeble-minded parents, then the value of measures which will prevent such persons from becoming parents will be very great.

It has been with a view to determine whether a large per cent. of feeble-mindedness is inherited from feeble-minded parents, that I have for the last two years been gradually collecting statistics bearing more or less directly upon this question. The work has been done simply as time could be snatched from pressing duties, and the opportunity has been lacking to trace out complicated lines of relationship, or search for missing links. The families with whose histories I have dealt have been



paupers, in part, or all of their members, and much of my information has been obtained from poor asylum records. Nothing in this work has been taken for granted. Absence of facts has in every instance counted against the strength of the showing made in the statistics. If no reliable information was obtainable about an individual, he was invarialy counted of sound mind, no matter how strong were inferential reasons for believing him of feeble mind. The result of this policy has been the certainty that the actual facts, could they be fully known, would perceptibly strengthen the force of the statistics collected. Of generations now living, essential facts are usually to be had if persistently sought; of generations dead, reliable information is often impossible to get. No Boswell dogs the steps of the imbecile.

Something of the histories of 248 families have been recorded here. They are not clean cut, not properly rounded out. They begin in obscurity, come into life for a few years and fall back into obscurity again. But the broken stories of their misery, their perpetation of their own wretched kind, their demoralizing influence upon their fellows, their dragging down of the average of morality, intelligence and physical development, are sorrowful beyond words.

The whole number of persons composing these 248 families is 887. Of the 395 males, 222, or 56.2 per cent., were found to be feeble-minded, and of the 492 females, 340, or 69 per cent., were feeble-minded. Of the 887 persons, therefore, 562, or 63.2 per cent., were mentally defective. It is to be noted that the feeble-mindedness among the females exceeded that among the males by 12.8 per cent. It is possible that this difference may be accounted for by the greater ease of tracing a history of feeble-mindedness in females, because the results of mental deficiency in them are usually more visible and far-reaching than in males. This is not offered as a sufficient explanation of the difference disclosed, but only as a suggestion possibly worthy of attention.

In 101 of the 248 families under consideration, has been found a history of feeble-mindedness extending through more than one generation. These supply examples of the transmittal of feeble-mindedness from parents to child. In those of the 248 families in which only one generation of mental deficiency has been discovered, the feeble-mindedness could not have been inherited from feeble-minded parents and must have been the result of other causes of which there may be many, but which time forbids me now to discuss. We have an opportunity therefore, to determine by a comparison whether feeble-mindedness in children is more or less likely to result from feeble-mindedness in parents than from other causes. If the percentage of feeble-mindedness in families where there is a history of this defect, running through two or more generations, is greater than in families in which feeble-mindedness is not inherited from feeble-minded parents, then the fair inference would seem to be that mental deficiency in the parents is that condition which is most certain to result in feeble-mindedness in the offspring. The 101 families

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in which more than one generation of feeble-mindedness was found numbered 447 different persons. Eighty-six families with 312 members had a record of feeble-mindedness in two generations: 12 families with 77 members had feeble-mindedness in three generations, while two families showed four, and one five generations of this defect. Of the 447 persons in these 101 families in which mental deficiency was known to have descended from parents to children, 359, or 80 per cent., were found to be feeble-minded. In the remaining 147 families under consideration in this paper in which feeble-mindedness has been found in but one generation, there were 440 different persons, of whom 203, or 46.1 per cent., were feeble-minded. Thus we find that in families in which mental deficiency descends from parent to children the per cent. of feeblemindedness is 80, while in those families in which feeble-mindedness is the result of all other causes the per cent. is 46.1. Other and more complete investigations must be made before these percentages can be accepted as reliable. Certainly no other physical or mental weakness can show a hereditary transmittal in 80 out of every 100 possible opportunities.

It is worthy of note that this inquiry has once more emphasized the close relationship which exists between feeble-mindedness and those other defects of mind and body commonly regarded as hereditary. Of the 887 persons concerning whom the foregoing statistics were collected, 2.6 per cent. were epileptics: 3 per cent. insane; 8 per cent. blind, and 1.7 per cent. deaf and dumb. Compare these percentages with the percentages of the same defects in the normal population. Employing the statistics supplied by the eleventh federal census, we find that in the United States in 1890, the insane composed two-tenths of one per cent. of the population; the blind, eight one-hundredths of one per cent., and the deaf and dumb, six one-hundredths of one per cent. Expressing the comparison differently: In 10,000 persons from the normal population we should expect to find 20 insane persons, 8 blind and 6 deaf and dumb, while in a population of 10,000 belonging to families in which there is a strain of feeble-mindedness, we should expect to find, according to the statistics here presented, 300 insane persons, 80 blind and 170 deaf and dumb. Were this comparison known to be wholly trustworthy, it would prove that the causes which produce feeble-mindedness are only less terrible in their collateral effects. The constitutional weakness which permits the entrance of one of these ills, seems to swing wide the doors in invitation to all the others. But we are not ready to accept the statistics which have been presented, as conclusive. The number of cases on which one side of the comparison is based is far too small to afford a substantial foundation for so important a verdict. Of this comparison I think we may safely say, it is significant in the direction in which it turns our thought and that it suggests fuller investigation by different persons in various parts of the country. It is to be noted also, that the comparison here made is not breaking a new path of inquiry, but follows an old trail, well defined, and serves only to add a few more finger posts to those already set.

In any discussion of feeble-mindedness it is hardly possible to avoid referring to the prevalence of illegitimacy among this class of unfortunates. It forces itself upon the attention of the investigater at every turn, and the fact very soon becomes patent, that a large per cent of all the illegitimacy occurring in the country is to be charged to those whose mental condition makes them partially or wholly irresponsible for the evils which they produce. In collecting the statistics above presented concerning 887 persons, there were found to be among them 186 cases of illegitimacy. That is, 21 per cent of all the members of 248 families, in which a strain of feeble-mindedness was found, was known to be illegitimate, while the marriage bonds was so little regarded by a great many of the families, that there is no doubt the actual proportion of illegitimacy. could the truth be known, would be shown to be much greater than the 21 per cent given. In reckoning the evils which are entailed upon society by feeble-mindedness, illegitimacy, with all the demoralization and degradation which accompany it, must be assigned a prominent place.

Did time permit, it would be of interest to refer more particularly to some of the families whose records have contributed to the statistics of feeble-mindedness and kindred evils which have been presented. A history of actual cases might convey a more vivid appreciation of the unhappy conditions surrounding and controlling the feeble-minded, than is produced by the discussion of totals and percentages. I must limit illustration to the partial history of a single family.

In one of our southern Indiana counties, the poor house records have been preserved for thirty-five years. During that entire time one family has been represented among the pauper population. This family's pauper record probably extends yet further back, but since the records of an earlier date have not been saved, the statement cannot be positively made. In the thirty-five years of which a record has been kept, it is found that thirty members of this family have been inmates of the poor house. As most of them have remained years and some have lived in the institution almost continuously since the record began, it is a fact that an average of three or four, possibly five, members of this family has been in the poor house at all time for fully one-third of a century. Other members have been recipients of outdoor relief, while a few have managed to "shift for themselves" in a half-civilized manner. I have been unable to determine, even approximately, the total number of persons in the family, even since the poor house record began, and links in relationship are here and there missing. The following fragment of history, which I have succeeded in compiling, is sufficient, however, to illustrate the subject under consideration. One of the oldest of the family now living was born in 1823. He is feeble-minded. His first wife was feeble-minded. Four children were the result of this marriage, two

sons and two daughters. All were feeble-minded. These children were named Mary, Margaret, Andrew and George. The first wife died, and in his old age this man married a second time, his second choice being also a feeble-minded woman. Three children resulted from the second marriage, but no record of their mental condition has been found. The two daughters which were born to the first wife of this man were, as I have said, feeble-minded. Both are living to-day, and are inmates of the poor asylum. Neither has ever married. Mary has borne six or seven children. Two have been dead for years, and their mental condition is not positively known. Two daughters now living are in the school for feeble-minded, and a son, who died within a few years, was feeble-minded. A third daughter is feeble-minded and is the wife of a feeble-minded man. They are not in the poor asylum, but live in a neighboring county, where they are given assistance by a township trustee. This couple has one child, of whose mental condition I have no information. The other sister, Margaret, has a daughter, feeble-minded and unmarried, and a feeble-minded son now in the school for feeble-minded. This woman has also borne two other children, now dead, but both said to have been feeble-minded. Of the son Andrew we have no record. He is dead and probably died in youth. The son George married a feeble-minded woman, and a feeble-minded son was born to them. George afterward separated from his wife, and later married a second feeble-minded woman. Before marriage, this woman had borne a feeble-minded son by a former husband and an illegitimate feeble-minded son by George. So far as known, every member of the family has been feeble-minded. At least ten members have been illegitimate. The history of this family is not closed. In truth, its productive power for evil is probably greater to-day than at any time during its history.

Again comes the question asked in the earlier part of this paper: "Can anything be done to check or prevent?" I believe we are prepared to answer, "Yes." The feeble-minded which we have, we must keep until they die, but they need not be allowed to bring other feeble-minded into existence. Prohibition would not check the operation of the first causes of mental deficiency, but it would stop the inheritance of the defect from parents similarly afflicted. Incomplete and inconclusive as the statistics which I have here presented may be, they certainly serve to demonstrate that a very large per cent of feeble-mindedness springs from feeble-minded progenitors. Let a stop be put to this source and the immediate cause of the greater part of feeble-mindedness in the country to-day, would, as I believe, be removed.

The fact that feeble-mindedness may be, and often is, inherited, supplies a solid foundation upon which to base restrictive and preventive measures. The knowledge should serve to give definiteness and direction to our work and a gauge by which to measure results. It may not assist in preventing first generations of feeble-mindedness, but it proves that second and subsequent generations may be prevented by means

within our control. Whatever the differences of opinion among investigators as to first causes or chief causes, or whatever plans may be proposed for reaching and remedying or alleviating the evil, I believe it is a a safe conclusion, and worthy of acceptance, that while society is remotely responsible for the first generation of feeble-mindedness in any family, its responsibility for every subsequent generation of feeble-mindedness in the same direct line of descent is clear cut and beyond question.

## FEEBLE-MINDEDNESS AND RELATED FACTS, TOGETHER WITH ILLE-GITIMACY, IN TWO HUNDRED AND FORTY-EIGHT FAMILIES.

	Whole number.	Feeble-minded.	Epileptic.	Insane.	Blind,	Deaf and dumb.	Illegitimate.
MalesFemales	395 492	222 340	13 10	7 20	2 5	5 10	101 85
Total	887	562	23	27	7	15	186
Families	3.58	2.27 63.4	2.6	3	.8	1.7	.75 20.9
Percentage of males Percentage of females	44.6 55.4	56.2 69	3.3	1.8 4.1	.5 1	1.3	25.6 17.3

## FEEBLE-MINDEDNESS IN FAMILIES CONTAINING TWO OR MORE GENERATIONS OF MENTAL DEFICIENCY.

No. of generations of feeble- mindedness in each family.	No. of tamilies.	Whole No. of persons.	No.of feeble- minded persons.	Percentage of feeble- mindedness.
Two	86 12	312 77	261 53	83.6 68.8
FourFive	2	51 7	38	74.5 100.0
Total	101	447	359	80.0

### APPENDIX B.

THE MANAGEMENT OF COUNTY JAILS.

#### APPENDIX B.

A paper read at the 5th Annual Minnesota State Conference of Charities and Corrections, by Joseph P. Byers, of Columbus, Ohio.

### THE MANAGEMENT OF COUNTY JAILS.

At the last annual meeting of the National Prison Association held but recently in Milwaukee, the statement was publicly made by the president of that body, General R. Brinkerhoff, that the county jails of the United States, with few exceptions, are no better than those of England in the time of John Howard, more than one hundred years ago; that, generally speaking, they present the same opportunity for evil and a corresponding absence of provisions for the suppression or prevention of crime. To persons unfamiliar with their condition this arraignment of them may seem too severe and not altogether justifiable. But those who have had the opportunity to see and judge for themselves know that a majority of our jails are inseparably connected with many of the evils and abuses investigated and exposed by Howard in 1777. I say inseparably connected, because the very character of the buildings themselves is such as precludes the possibility of securing needed reforms. No sort of management, not even the best, will ever succeed in disassociating them with the term, "schools of crime," built and administered, presumably, for the protection of society, they in reality serve as successful aids in the encouragement, confirmation and propagation of vice. They are often so dark that reading is an impossibility; ventilation is unknown; many of them are without proper sewerage; they fail absolutely to provide for the separation of prisoners; the old and young, innocent and guilty, the suspect and the convict, the witness and the prisoner for or against whom his testimony is to be given, the murderer, the thief, and the degenerate, are forced into an association that cannot but be harmful to the last degree. Their builders evidently had but one idea-one end in view in their construction—and that was to hold safe the body of the prisoner. They seem to forget that to take from a man his liberty does not necessarily imply deprivation of air and light; that incarceration in jail is not always proof of guilt. The thought that there might be some injustice in detaining men in dark and unhealthy prisons amid vicious environments did not seem to occur to them. It is in jails of this character that the ingenuity of the sheriff or jailer is taxed constantly to discover and frustrate schemes for escape, the formation of which by prisoners in association is easy and their successful carrying out possible.

To keep such a jail clean and the prisoners in a state of subordination would seem to be the utmost that could reasonably be expected of their officers. But even here there is often room for improvement in the management. Because there is no separate apartment for juveniles is no good reason for locking up a boy with older criminals, when the depart

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ment for females is in most instances unoccupied. A certain classification is possible in almost every jail, and it should be the constant effort of sheriffs to carry it out to the utmost limit. Neither should a dark jail serve as an excuse for a dirty one. A liberal and frequent use of whitewash will often improve not only the appearance of an old jail, but at the same time sweeten and lighten it, besides providing employment for the inmates.

But the old jail is beginning to pass away. It is a relic of the last century—too numerous and unsightly as yet to be valued and preserved for its antiquity.

With the development of our prison system the county jail is coming more and more to be looked upon as a place of detention merely, where persons awaiting trial, or held as witnesses, or pending transfer, may be safely kept. This, I take it, is its true mission.

But before we reach this point in the development of the system we shall require a further extension of our workhouses, so that persons convicted of minor crimes may be sentenced to useful labor rather than to a dangerously monotonous idleness in jail.

The modern jail in its construction and arrangement seeks to correct or eliminate the defects so conspicuous in the old, and which I have attempted to partially outline. Its arrangement of corridors and cells is such as will give the occupant of each cell (and where it can be avoided there should never be more than one prisoner to a cell) ample light, plenty of air and room enough to move about. Usually a window is placed opposite the front of each cell. We know now that the entrance of air and light does not necessarily provide an exit for the prisoner.

Secondly, and this is of the utmost importance, the location, number and size of the cells permit of the permanent separation of each prisoner from every other prisoner without depriving him of needed exercise or other necessary requirements for the preservation of health.

But the objection is often made by sheriffs charged with the administration of some of the newer jails that the separation of prisoners, one from another, cannot be maintained. They contend that the difficulties of administration are increased thereby: that it is cruel; that it interferes with the discipline; that it requires additional help, and so on. Without attempting to directly answer their arguments, other than to say that experience has proved every one of them false, let me mention a few of the advantages that I believe follow the enforcement of separation.

First—It gives additional security by lessening the liability to escape Prisoners separated no longer work in concerted action and wholesale jail deliveries are not planned, or, if planned, cannot be executed. One prisoner is dealt with at a time. By the same reasoning additional protection is afforded the jailer.



Second—It removes the possible innocent man, or the beginner in crime, from the contaminating influences of old and experienced criminals. In this connection and to show the recognition that was early given to the baneful influences exercised by professional criminals upon others as yet unconfirmed, let me quote from John Howard's account of the condition of the English jails, published in 1777. He says, after describing the physical condition of prison and prisoners, "I have now to complain of what is pernicious to their morals, and that is the confining all sorts of prisoners together; debtors and felons; men and women; the young beginner and the old offender; and with all these such as are guilty of misdemeanors only. In some jails you see (and who can see it without pain) boys of twelve and fourteen eagerly listening to the stories told by practiced and experienced criminals of their adventures, successes, stratagems and escapes."

Within the last three months in one of our Ohio jails, I noticed a boy sixteen years of age occupying a corridor of the jail in common with six or seven older prisoners. My attention was attracted to him by his apparent youth. The sheriff, in answer to my inquiries, explained that he was under indictment for "cutting to wound." He laughed at my suggestion that the boy was being made worse by his association with the other prisoners, and gave it as his opinion that he was far more likely to corrupt the men. After putting a few questions to the boy myself, I was about convinced that the sheriff was right. He surely gave every indication of enjoying the prominence and notoriety into which he had sprung and the future bore no terrors for him; the applause and commendations of his associates were to him a stimulant and a tonic. this was a boy—the possibility of good not yet dead, albeit the surface indications were bad. In all probability to be an inmate, in the near future, of our new reformatory, where every effort will be put forth to reclaim and save him. Every hour he spent in that company in that jail made more difficult and hopeless in his case the work of the reformatory. The sheriff, on my suggestion, promised to remove him to the department for females, which was unoccupied, and to keep him from the other prisoners. A letter received from him several weeks ago advised me that he had done so.

I have yet to find the sheriff or jailer who will deny that the association of prisoners in jail is detrimental to their moral nature.

Third—It is a difficult matter oftentimes to fix the responsibility for the malicious destruction of property by prisoners. It is only a pastime for them to tear up their bedclothing, deface the walls, destroy locks, obstruct the sewers and create a general disturbance. But where they are separated, each confined to his own cell, it needs but a moment to discover the perpetrator of meanness and to discipline him as he may deserve.

Fourth—The jail is more easily kept in a cleanly condition. Each prisoner becomes responsible for the condition of his own cell and as often

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as may be necessary, can be required to assist in scrubbing the corridors and cleaning up the jail generally, under the direction of the deputy.

Fifth—Disturbances or fights among prisoners are impossible.

Sixth—Plots for contemplated crimes for commission after release cease to be concocted.

Seventh—The custom of going to jail for the winter months, where three meals a day and congenial company are assured, ceases when it is understood that the congenial company is to be restricted to one and that one's self.

Eighth—Acquaintances are not made that may forever after exert an evil influence on the lives of innocent or repentant men.

The foregoing reasons, in my judgment, far outweigh any argument that may be brought to bear against the separation of prisoners in county jails. They are logical, sensible and susceptible of proof. The administration of a jail in conformity to rules such as they would indicate, is in the interest of the prisoner, whoever or whatever he may be, of the sheriff and the community.

Care should be taken to provide proper hours for exercise when the cells are too small for that purpose.

Suitable reading matter, in which is not included police gazettes, dime novels and like sensational stuff, will be easily secured if the wants of the prisoner in this regard are made known to the proper persons or societies. All that is necessary is to make your wants in this regard known.

The absence of work for prisoners is one of the serious difficulties presented in the administration of our county prisoners; but, as I have said before, the extension of our workhouse system will relieve that trouble.

I have left for the closing paragraph of this paper a word or two concerning jail officials. At our own state conference, held last October, in a paper on the "Relief of the Poor," the author, in speaking of the baneful effect of political interferences with the management of institutions, said: "If there is any one thing the American people hate and abominate above all else, it is efficiency on the part of its public servants." Judging from the frequency with which capable and experienced officials of all kinds are displaced by untried and inexperienced ones, as a result of party favor or disfavor, in Ohio and other states as well, his statement will go unchallenged. Our jails have not been exempt, nor will they be while the present method of placing them in charge of an elective officer, under a fee system, continues. Those qualities required to produce the most successful jail officer—courage, intelligence, kindness, patience and decision—are not possessed by all men, and when once found and thoroughly tested they should not lightly be discarded.

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### APPENDIX C.

COPY OF SAMPLE BLANK SENT TO EACH TOWNSHIP CLERK IN OHIO AS A GUIDE FOR KEEPING TOWNSHIP RECORDS.

### TOWNSHIP POOR RECORD

Case	of					Pa	uper
Sex				•••••	•••••		
Age				•••••			
Color	•••••		• • • • • • • • • • • • • • • • • • • •	•••••	••.		
Birth	place (state or coun	t <del>ry</del> )		•••••			•••••
How	long resident of To	wnship	· · · · · · · · · · · · · · · · · · ·	•••••	••••	••••••	
Reaso	ns for relief*	***************************************	••••••		•••••	•••••	
	ACCOUNT OF EXPEN	Psuperism, whether Intemper NDITURES BY TRUSTEES FO ense incurred or trustees rendered.	R THE SU	PPORT	OF SA	·	
Mo.	Day			Dls.	Cts.	Dls.	Cts.
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If m	arrie	d, nı	ımbe	er in f	amil	y							· · · · · · · · · · · · · · · · · · ·	
Whe	ther	had	prev	iously	y rece	ived r	elief		•••••		•••••			
Whe	ther	eith	er of	the n	aren	ts or s	rand	l paren	ts have	eve:	been a	public ch	arge	
				•		_	•	•					•	
												••••••		
Clo	th- g.	Ft	ıel.	Fun	eral.	Mi: cellan	s- eous.	Per di pens tees	ses of			f trustee.	To	tal.
Dls.	Cts.	Dls.	Cts.	Dls.	Cts.	Dls.	Cts.	Days.	Dls.	Cts.			Dls.	Cts

TABLE NO. I. ENHIBIT SHOWING THE FINANCIAL TRANSACTIONS AND MOVEMENT OF POPULATION IN ALL STATE INSTITUTIONS

DURING THE YEAR ENDING NOVEMBER 15, 1896.

Longview Hospital at Carthage.	\$67,308 78 143,500 00 23,343 97 2,137 08 729 18	237,019 01 173,888 43 63,130 58		*9,050 00
Dayton State Hospital at Dayton.	\$44,890 77 112,625 00 9,047, 10 1,410 49	167,973 86 118,671 01 49,302 35	1,693 21 6,285 68	7,978 89 5,878 48
Columbus State Hos- pital at Columbus.	\$49,470 13 172,000 00 17,186 06 2,749 53 594 90	242,000 62 188,909 56 53,091 06	2,429 86 6,101 00	8,530 86 6,383 50
Cleveland State Hospital at Cleveland.	\$72,620 14 115,129 30 13,474 41 1,307 80	202,531 65 144,298 72 58,232 93	2,079 82 6,066 00	8,145 82 6,000 65 2,145 17
Athens State Hospital at Athens.	534,079,07 112,223,18 8,980,10 2,183,92 633,34	158,099 61 111,677 08 46,422 53	1,866 99 5,800 00	7,666 99 5,444 93
	Balance of former appropriations in state treasury to the credit of the institution November 15, 1895 Amount of appropriation made during the year Amount received from counties for clothing furnished Amount received from earnings or sale of products	Total receipts of all kinds	II. APPROPRIATION FOR SALARIES OF OFFICERS AND EXP. OF TRUST. Balance of former appropriations in state treasury November 15, 1895 Amount of appropriations made during the year	Total Amount expended during the year

19,770 77 16,571
4
4,393 63
319 62
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2 2
15
443 17
79 73
88
41
8:3
902 29
10.408.61
686 16
1,586 20
10,153 96
172 13
327 06

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TABLE No. I.-Continued.

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Longview Hospital at Carthage.	\$18,043 78 240 44 1,782 51 88 13 295 98 177 39 920 40 18,801 78 416 85 82 27 64 20 1,284 90 370 90	•
Dayton State Hospital at Dayton.	\$12,660 80 1,335 82 1,330 33 1,52 70 194 15 244 22 695 60 113 00 113 00 851 30 194 73 194 73	41 65 560 80 35,059 55 8,210 07
Columbus State Hos- pital at Columbus.	\$23,207 12 1,384 75 1,384 75 1,384 92 1,384 92 1,13 07 1,433 72 1,433 72 1,57 86 1,57 86 1,57 86 1,50	81 52 748 09 31,461 07 17,516 14 3,047 67
Cleveland State Hos- pital at Cleveland.	\$21,199 73 149 82 1,084 04 265 87 173 20 265 87 852 98 11 84 11 84 11 84 2,098 30	
Athens State Hospital at Athens.	\$15,091 75 507 02 507 02 507 02 508 48 229 55 516 06 223 10 117 65 117 65 110 65 238 79 238 79 230 110 230 110	53 65 346 06 22,490 69 13,118 17 1,496 18
	CURRENT EXPENSES—Concluded.  Meats and lard Oills. Oills. Patients, and game Patients, bulls and set ds. Postage Queensware and glassware. Repairs Subscription to newspapers Subscription to newspapers Subscription to newspapers Tobaccos. Tobaccos Tracelphone and telegraph Traveling expenses.	Water rent. Wooden and willow ware Wooden and liquors. Wages, male pay roll. Wages, female pay roll. Wiscellaneous.

	188,909 56 118,671 01 173,888 43 20,530 49 10,457 59 2,866 26	168,379 07 108,213 42 171,022 17	6,200 00 5,490 28 7,800 00 183 50 388 20 1,250 00	6,383 50 5,878 48 9,050 00	2,111 16	20,411 07 9,408 47 18,801 78	74,412 00	24,853 07 11,519 63 18,801 78		1,274 839 1,006	\$138 10 \$137 17 \$170 00	153 37 148 33 172 85	165 08 159 66 191 53	1,336 833 987 303 133 150 69 82 81	1,708 1,218
390 70	144,298 72 14,782 21	129,516 51	5,066 67 933 98	6,000 65	688 39	11,609 15	1,660 65	13,958 19		1,004	\$134 97	149 70	150 30	979 242 86	1,307
	111,677 08	99,879 72	4,954 14 490 79	5,444 93		15,377 14		15,377 14		818	<b>\$</b> 128 72	143 01	161 78	829 173 55	1,057
Cash on hand November, 15, 1896	Total	Net current expenses, not including officers' salaries	II. APPROPRIATIONS FOR SALARIRS OF OFFICERS AND EXPENSES OF Officers' salaries.  F. Xpenses of trustees.	Total	III. Appropriations for Repairs, Improvements, ETC.— Carpets and curtains	Buildings. Ordinary repairs.	Insurance Not classified	Total	AVERAGES AND PER CAPITA.	Daily average number of inmates actually in institution				MOVEMENT OF POPULATION.  Number remaining November 15, 1895  Admitted during the year—First admission	Total on records during the year.

TABLE No. I.—Concluded.

E, A	ECU	TIVE I	OCUM	1EN
Longview Hospital at Carthage.		114 .80 .5	486	1,019
Dayton State Hospital at Dayton,		115 55	428	845
Columbus State Hos- pital at Columbus.	· <del>-</del>	238 108	672	1,279
Cleveland State Hospital at Cleveland.		190 70	529	1,047
Athens State Hospital at Athens.		175	409	821
	MOVEMENT OF POPULATION—Concluded,	Discharged during the year or transferred Died Escaped	Remaining November 15, 1896—Males	Totals

TABLE No. 1-Continued.

!	60 60 75 75	<del>42</del>	<u>-</u>	8 8 8 8	86.8	_
Institution for the Blind at Columbus.	14,336 4 42,553 04 2,981 6 488 7 304 55	60,664 4 43,199 6	17,464 76	5,051 9 11,988 0	17,039 9 12,936 8	4,103 11
Institution for the Deaf and Dumb at Co- lumbus.	20,455 34 60,000 00 3,644 66	84,100 00 57,733 75	26,366 25	7,837 38 28,608 00	36,445 38 27,323 26	9,122 12
Institution for Feeble- Minded Youth at Columbus,	62,304 51 e114,456 23 9,277 45 794 06	187,214 82 124,623 05	62,591 77	7,193 79	22,269 79 15,391 19	6,878 60
Ohio Hospital for Epi- leptics at Gallipolis.	28,630 39 84,000 00 7,730 51 357 72 21 98	120,740 60 77,235 88	43,504 72	2,913 49 5,900 00	8,843 49 5,855 96	2,957 53
Toledo State Hospital at Toledo.	52,944 06 152,000 00 16,492 15 686 14 1,449 08	223,571 43 6164,110 89	59,460 54	2,170 76 5,718 00	7,888 76 76,486 38	1,402 38
	Balance of former appropriations in state treasury to the credit of the institution November 15, 1835	Total receipts of all kinds	Balance remaining in state treasury and on hand November 15, 1896	II. APPROPRIATION FOR SALARIES OF OFFICERS AND EXP. OF TRUST. Balance of former appropriations in state treasury November 15, 1895 Amount of appropriations made during the year	TotalsAmount expended during the year	Balance remaining in state treasury November 15, 1896

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Institution for the Blind at Columbus.	447 38 7,000 00	7,447 38 6,893 89	553 49	1			2,101 17			28 75		808	
Institution for the Deaf and Dumb at Co- lumbus.	2 01 6,250 00	6,252 01 6,241 04	10 97				1,786 23			000	07 70	204 13	
Institution for Feeble- Minded Youth at Columbus.	15,494 43 15,000 00	30,494 43 14,110 55	16,383 88		19 32		3,818 95					1,591 17	
Ohio Hospital for Epi- leptics at Gallipolis.	118 26 8 000 00	8,118 26 2,264 16	5,854 10		128 34	1,683 50 3,859,87	2,026 07	392 07	181 92	12 25	25 00	1,453 87	3,136 49
Toledo State Hospital at Toledo.	5,597 82 13,832 00	19,429 82 d18,163 15	1,266 67	-			5,717 23						7,466 33
	III. REPAIRS, IMPROVEMENTS, ETC. Balance of former appropriations in state treasury November 15, 1895 Amount of appropriations made during the year	Totals Amount expended during the year	Balance remaining in state treasury November-15, 1896	CLASSIFIED STATEMENT OF DISBURSEMENTS.	I. CURRENT EXPENSES Anusements Advertising	Boots and shoes Butter and eoos	Breadstuffs, fineluding flour and cereals) Racksmithing	Blank books and stationery	brooms and prushes	Candies and nuts.	Chapel services.	Canned goods	Clothing and furnishing

Drugs and medicines	1,491 27	2,919 06	1,711 68	242 08	553 68
Dried fruits					
Electrical supplies				•	•
Forage		524 94		60 04	318 45
Fuel and light					
Fish and oysters				321 33	
Fresh fruit and berries					
Choceries				_	
Hardware				- :	
Harness and horse trappings					
Laundry supplies				360 17	
Milk					
Meats and lard					
Oils					
Poultry and game				615 01	
Patients' expenses					
Plants, bulbs and seeds				236 95	
Postage			344 10		213 30
Oncensware and glassware					369 75
Repairs					
Subscription to newspapers				49 44	
Surgical instruments			72 07		
Shoemakers' supplies					:::::::::::::::::::::::::::::::::::::::
Tobaccos					
Telephone and telegraph			300	91 40	
Traveling expenses.					
Vegetables			1,339 80	1,567 16	1,807 66
Water rent		125 00			273 19
Wooden and willow ware					
Wines and liquors				23 20	
Wages, male payroll	32,805 83	10,835 29	23,526 44		5,255 00
Wages, female payroll					
Miscellaneous		7,758 37		14,096 70	

TABLE No. 1 -Continued.

Institution for the Blind at Columbus.		\$43,199 69 3,775 02	39,424 67	3,579 64 9,357 23	12,936 87	600 00 500 00 1,000 00 400 00	4,393 89	6,893 89
Institution for the Deaf and Dumb at Co. lumbus.		\$57,733 75 3,644 66	54,089 09	5,426 52	5,426 52		6,250 00	6,250 00
Institution for Feeble- Minded Youth at Columbus.		\$124,623 05 10,454 08	114,168 97	15,032 19 359 00	15,391 19	422 86 6,874 23 6,813 46		14 110 55
Ohio Hospital for Epi- leptics at Gallipolis.		\$77,235 88 8,110 21	69,125 67	4,991 67 864 29	5,855 96	2,264 10		2,264 10
Toledo State Hospital at Toledo.	95 41	152,770 28 18,627 37	134,142 91	5,718 00	5,718 00	13,832 00		13,832 00
	Cash on hand Nov. 15, 1896	Totals I.ess receipts from outside sources:	Net current expenses, not including officers' salaries	II. APPROPRIATIONS FOR SALARIES OF OFFICERS AND EXPENSES OF Officers' salaries.  Expenses of trustees.	Totals	III. APPROPRIATIONS FOR REPAIRS, IMPROVEMENTS, ETC. Carpets and curtains  Buildings. Ordinary repairs.	Insurance.  Not classified	Totals

TABLE No. I-Continued.

D/A	BCU	TIVE DOCUM	TRUIT	3.				
Girls, Industrial Home at Delaware.		\$12,234 81 \$ 12,757 22 3,421 91 507 33 260 67	29,181 94 17,375 69	11,806 25	6,518 83		17,578 93	6,414 90
Boys' Industrial School at Lancaster.		\$19,997 55 51,500 00 3,413 70 373 99 4 60	75,289 84 58,909 13	16,380 71	5,681 15	36.286 44	28,978 09	7,308 35
Ohio Soldiers' and Sailors' Home at Sandusky.	•	\$21,209 14 162,936 67 84 39 978 75	185,208 95 148,033 02	37,175 93	3,098 21	10,486 21	7,282 53	3,203 68
Ohio Soldiers' and Sailors' Orphans' Home at Xenia.	-	#39.315.78 116,831.00 2,299.95	158,446 73 123,840 53	34,606 20	9,741 00	30,397 09	23,920 50	6,476 59
	I. APPROPRIATIONS FOR CURRENT EXPENSES.	Balance of former appropriations in state treasury to the credit of the institution November 15, 1895	Total receipts of all kinds	treasury and o	II. APPROPRIATION FOR SALARIES OF OFFICERS AND EXP. OF TRUST.  Balance of former appropriations in state treasury November 15, 1895	Total	Amount expended during the year	Balance remaining in state treasury November 15, 1896

<b>63 -</b>				ВО	AF	LD.	Or	· 5	ı.		⇒ -	<b>С</b> Б	. A	K.I		r,	э. •			_	•		_	_	
637 72 5,000 00	5,637 72 4,934 40	703 32		31.50			1,790 85		76 45		02 gg		30 gg		177 34			195 63		2,977 26	115 55	2,704 31	49 44		
16,324 88 8,000 00	24,324 88 24,324 78	10					3,970 91					84 05 00 00					312 56								2,820 22
2,120 12 17,000 00	19,120 12 18,010 08	1,110 04					3,815 62					116 97					492 33				2,632 54				4,877 64
203 43 13,000 00	13,203 43 12,058 08	1,145 35	-			15 049 80	5,028 85		435 25						2,188 74			322 38	816 83	11,331 98	5,062 27	11,391 37	757 07	94 50	1,416,1
III. REPAIRS, IMPROVEMENTS, ETC.  Balance of former appropriations in state treasury November 15, 1895  Amount of appropriations made during the year	Total	Balance remaining in state treasury November 15, 1896	CLASSIFIED STATEMENT OF DISBURSEMENTS.	I. Current Expenses— Annusements	Advertising	Boots and shoes	Breadstuffs (including flour and cereals)	Blacksmithing	Brooms and brushes	Cutlery	Candies and nuts	Cider and vinegar	Canned goods	Clothing and furnishing	Drugs and medicines.	Dry goods and notions.	Dried fruits	Freight and express.	Forage.	Fuel and light	Fish and oysters. Fresh fruit and berries	() Toceries.	Hardware	Harness and horse trappings	Milk

TABLE No. I-Continued.

EX	ECU	TIV	E D	oc	UM	Œ	NT;	S.							
Girls' Industrial Home at Delaware.		\$1,528 51	35 99		155 06		10 00			103 32		117 96			3,030 32
Boys' Industrial School at Lancaster.			\$368 82		200 00				<b>3</b> 8 8 8 8 8 8					1 461 30	
Ohio Soldiers' and Sailors' Home at Sandusky.			692 99										52 52 80 80 80 80 80 80 80 80 80 80 80 80 80		136 35 136 35 9,144 09
Ohio Soldiers' and Sailors' Orphans' Home at Xenia.		\$14,610 99	2,074 44 2,074 44 9,859 84	27.75	237 58	262 60	26 20			238 87	78 70	3,779 53		68 16	17,255 39 3,318 03
	CURRENT EXPENSES - Continued.	Meats and lard	Poultry and game Pariants' expanses	Plants, bulbs and sceds.	Postage	Queensware and glassware Rebairs	Subscription to newspapers.	Surgical instruments	Shormakers supplies	Telephone and telegraph.	Traveling expenses.	Vegetables	Wooden and willow ware	Wines and liquors	Wages, female pay roll. Miscellancous

Cash on hand November 15, 1896		130 94		53 86
Total Less receipts from outside sources	123,840 53 2,299 95	148,033 02 1,063 14	58.909 13 3,792 29	17,375 69 4,189 91
Net current expenses, not including officers' salaries	121,540 58	146,969 88	55,116 84	13,185 78
II. APPROPRIATIONS FOR SALARIES OF OFFICERS AND EXPENSES OF Officers' salaries.  Expenses of trustees.	23,260 95 659 55	6,798 33 484 20	28,244 99 733 10	16,957 07 621 86
Total	23,920 50	7,282 53	28,978 09	17,578 93
III. APPROPRIATIONS FOR REPAIRS, IMPROVEMENTS, ETC. Carpets and 'curtains	2,567 83	338 00	975	362 36
Bulldings. Ordinary repairs Lands.	3,023 57	3,069 16	_	1,817 48 q 78 41
Insurance	6,646 68	7,289 91	\$ 1,540 71 9,081 15	2,676 15
Total		18,010 08	24,324 78	4,934 40
AVERAGES AND PER CAPITAS.	19.050.01			•
	968	1,041	773	345
ites and expenses of trustees	162 34	171 04	107 49	89 11
expenses, including salaries and expenses of trustees.	164 90	173 34	113 69	101 31
expenses, including ordinary repairs, salaries and trustees' expenses	168 28	176 76	124 64	106 58
MOVEMENT OF POPULATION.				
Number remaining November 15, 1895 Admitted during the year—First admission Readmission	904	1,330 384 115	789 383 62	342 81
Total on records during the years	1,046	1,829	1,234	423

TABLE No. 1-Concluded.

EX	BCUTIVI	3 DOC	UME
Girls' Industrial Home at Delaware.	76	347	347
Boys' Industrial School at Lancaster.	409 3	1,406 821	821
Ohio Soldiers' and Sailors' Home at Sandusky.	/ 350 73	1,406	1,406
Obio Soldiers' and Sailors' Obio Soldiers' Orphans' Home at Xenia.	152 <i>t</i> 350 2 73	544	89.7
	Discharged during the year or transferred	Remaining November 15, 1896—Males	Total

TABLE No. I-Continued.

BOAL	SD O	F STATE CH	ARIT	ES.				
Corresponding total for   1895.		\$573,398 20 1,654,705 92 113,324 46 13,812 72 10,556 44	2,365,797 74 1,671,012 50	654,827 91		95,770 75 <b>28</b> 3,245 78	379,016 53 279,685 69	99,330 84
.6881 rol latoT		\$659,398 51 1,604,517 60 115,349 05 226,481 49 28,851 18	2,634,597 83 1,851,873 52	782,724 31		99,837 71 301,108 97	400,946 68 299,157 94	101,788 74
Obio State Reformatory at Mansfield.		00 000'08\$	30,000 00 10,559 29	19,440 71	-	25,000 00	25,000 00 10,796 62	14,203 38
Ohio Penitentiary at Columbus.	<b>!</b> -	\$119,601 61 122,006 00 214,810 78 16,136 43	++472,554 82 +288,807 80	183,747 02		41,561 15 108,442 00	150,003 15 118,900 05	31,103 10
	I. APPROPRIATIONS FOR CURRENT EXPENSES.	Balance of former appropriations in state treasury to the credit of the institution November 15, 1895	Total receipts of all kindsAmount expended during the year and cash on hand November 15, 1896	Balance remaining in state treasury and on hand November 15, 1896	II. APPROPRIATION FOR SALARIES OF OFFICERS AND EXP. OF TRUST.	Balance of former appropriations in state treasury November 15, 1895	Totals	Balance remaining in state treasury November 15, 1896

TABLE No. I-Continued.

E	KECUTIV	VE DO	OCU.	ME	VTS.
Corresponding total for 1895.	\$272,763 32 85,053 18	357,816 50 233,373 31	124,443 19		
.9681 for 1896.	\$62,762 85 171,082 00	233,844 85 194,744 12	39,100 73		4,600 60 1,227 09 20,158 65 120,453 19 75,394 61 1,189 54 1,809 44 1,806 93 1,777 84 1,777 84 1,286 64 1,777 84 1,286 19 1,777 84
Ohio State Reformatory at Mansfield.					
Obio Penitentiary at Columbus.	\$11,424 02 17,000 00	28,424 02 28,138 61	285 41		672 53 12,299 21 18,631 58 2,267 56 421 30 26 57 6 27 22,534 01
	III. REPAIRS, IMPROVEMENTS, ETC. Balance of former appropriations in state treasury November 15, 1895 Amount of appropriations made during the year	Total	Balance remaining in state treasury November 15, 1896	CLASSIFIED STATEMENT OF DISBURSEMENTS.	I. CURRENT EXPENSES— Amusements. Advertising. Bods and shoes. Butter and eggs. Bratistuffs (including flour and cereals). Blacksmithing. Brooms and stationery Brooms and brushes. Cutlery. Candies and nuts. Cider and vinegar. Chapel services. Canned goods.

Drugs and medicines.  Dry goods and notions.  Dried fruits.  Electrical supplies.	3,354 71 464 45 1,377 92	25,106 88 52,372 44 10,428 32 2,158 60	
Freight and express Forage			
Fiel and light			
Fresh fruit and berries	2,585 22		
Hardware		10,254 33	
Laundry supplies	1,512 30		
Meats and lard	40,189 99	221,004 12	
Poulty and game	530 65		
Patients expenses			
Postage. Queensware and glassware.	990 42 1,113 95		
Repairs Subscription to newspapers	78 80	28,877 26 1,212 07	
Surgical instruments	142 75 11,168 31		
Tobaccos. Telephone and telegraph.	3,801 92 301 81	10,612 38 3,698 84	
Traveling expenses. Vegetables Water rent	245 70 6,958 81 454 01	3,673 97 31,104 04 1.644 26	
Wooden and willow ware Wines and liquors Wages, male payroll	611 72 118,900 05		
Wages, female payroll	6,068 12	148,548 26 110,461 65	

TABLE No. I-Concluded.

	Ohio Penitentiary at Columbus.	Obio State Reformatory at Mansfield.	Total for 1896.	Corresponding total for 1895.
Cash on hand November 15, 1896			\$670 91	
Total Less receipts from outside sources.	\$288,807 80 230,947 21		1,829,973 62 347,337 75	\$1,671,012 48 343,964 71
Net current expenses, not including officers' salaries	57,860 59		1,482,635 87	1,327,048 77
II. Appropriations for Salaries of Officers and Expenses of Trusters, Officers' salaries.  Expenses of trustees.	112,520 05 6,380 00		252,040 50 22,705 70	279,544 25 11,189 86
Total	118,900 05		274,746 20	290,734 11
III. APPROPRIATIONS FOR REPAIRS, IMPROVEMENTS, ETC. Carpets and curtains. Buildings. Ordinary repairs. Lands. Insurance. Not classified. Total.	28,13 61		8,065 60 18,551 01 144,030 14 878 41 1,540 71 42,260 43 215,826 30	10,789 70 35,103 52 131,403 41 30,116 83 12,835 74 41,787 43

	13,042					13,256 4,030 556	17,842	3,405 590 183	8,998 4,666	13,664	doing in superin- construction of 1 storage.
	13,556	137 81	151 23	160 54		13,752 3,874 813 4	18,443	3,425 621 8	9,332	14,179	p Includes \$115.22, balance remaining in superintendent's hands.  Library.  Special appropriation for the construction of cleetric light plant and cold storage.  Includes in temporarily absent.  Includes the fropped for absence without leave 30 days.
											p Includes \$115.22, batch tendent's hands. q Library. r Special appropriate strongers includes 15 temporare in
	2,174	81 31	132 74	145 78		2,022 1,102 174	3,298	1,232	1,997	2,035	1. sources. airs was used for xtra expense in- ble to single beds.
APITA.	actually in institution	i numore of inmarcs and are current expenses, is said expenses of trustees	ries and expenses of trustees	and trustees' expenses	ATION.	nber 15, 1895 — First admission. Readmission.			1896—Males Females		/ Includes wages female payroll.  / Includes \$5.26 collections / Includes \$6.29 collections / Includes \$6.29 collections / Includes \$6.29 collections / Burdal expenses. / Machinery and tools. / Machinery and tools. / The \$7.980.50 credited to repairs was used for building tunnel and the extra expense incurred in change from double to single beds.
AVERAGES AND PER CAPITA	Daily average of inmates actually in institution.		expenses, including salaries and expenses of trustees	Same, based on number of inmates and total expenditures for current expenses, including ordinary repairs, salaries and trustees' expenses	MOVEMENT OF POPULATION	Number remaining November 15, 1895 Admitted during the year—First admission Readmission.	Total on records during the year	Discharged during the year or transferred	Remaining November 15, 1896—Males Fremales	Total	a Includes \$223.18, balance in hands of steward. b Includes \$11.340.51, amount transferred to industrial building. c Includes \$2.12, amount transferred to industrial building. d Includes \$3.188.8, amount transferred to Industrial cludes \$3.198.9, balance in hands of financial officer. + Includes \$3.29, 22, balance in hands of financial officer. + Includes \$4.18,00.05 officers saidries and wages. + Includes \$4.18,00.05 officers saidries and wages. + Included in expenditures under current expenses.

TABLE No. 2.-Insane Statistics; General Results; Statistics for the Year; Current Expenses, Per Capita Cost, Erc.

		•							.				U
		Athens.			Cleveland		ပိ	Columbus.		]	Dayton.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
GENERAL RESULTS FROM OPENING OF— First admission	2,661 522	2,402 537	5,063 1,059	3,561 1,085	3,447 1,215	7,008	2,409	2,187	4,596 1,922	3,196 1,147	2,917	6,113 2,181	BARC
Total	3,183	2,939	6,122	4,646	4,662	9,308	3,382	3,136	6,518	4,343	3,951	8,294	UII
DISCHARGED Recovered Improved Stationary or transferred Died	1,142 347 576 709	1,066 346 599 516	2,208 693 1,175 1,225	1,783 685 873 700	1,788 888 964 468	3,571 1,573 1,837 1,168	1,292 249 593 659	1,119 843 568 496	2,411 592 1,161 1,155	1,766 477 879 778	1,510 525 812 671	3,276 1,002 1,691 1,449	AR DOCUM
Total	2,774	2,527	5,301	4,041	4,108	8,149	2,793	2,526	5,319	3,900	3,518	7,418	TATA T
RESULTS FOR THE VEAR— Remaining November 15, 1895 Admitted during the year	416	413 105	828 228	<b>4</b> 94 173	485 155	979 328	701	635 164	1,836	\$ <del>1</del> 25	405 89	833	. 53.
Total	539	<b>518</b>	1,057	299	640	1,307	806	799	1,707	553	494	1,047	
First admissionReadmission	9. 29.	65 88 88	173 55	134	108	242 86	170 37	88	90g 93	74	8 22	, 133 81	
Discharged recovered-First admission	46 15	34	& <b>8</b>	55 5	67	122	77.8	52 18	828	8 8	छ 4	38	
Total recoveries	61	52	113	99	8	83	28	2	155	R	19	42	

43 35 35	170	845 858 838	15	07 02 8 5	\$ 762 \$108,213 42	5,878 48 \$114,091 90	128 92 126 03 1 to 14 124
111	61	417 419 411	7 41		<b>%</b>	\$11	
	109	428 439 427	8 8	& <del>4</del> & i			
47 36 108	346	1,361 1,320 1,274 1,274	61	114 55 10	\$188,909 07	6,383 50 \$195,292 67	153 29 148 70
39 88	147	652 630 600 45	8 %	88	490 *181	61\$	
888 ——	199	709 690 674 37	31	83 10 10			
45 16 70	760	1,047 1,656 1,004	155 183	22.5	325   554  \$129,516 51	5,066 67 \$134,583 18	129 00 122 65 1 to 14 138
25.53	122	518 522 494	75 100	24.2		\$13	
	138	529 534 510	08 88 88	12 20 20	!		
37 25 61	236	821 879 819 19	136	£40;	200   207 200,668 77	5,444 93 \$106,113 70	122.91 114.52 1 to 15 127
18 12 24	106	412 438 405 11	89	_ [		₩	
119 13 87	130	409 441 414 8	69		R '		
Discharged improved	Total	Remaining November 15, 1896	Condition of Patients Nov. 15, '96. Probably curable cases	CHRONIC AND PROBABLY INCURABLE Imbeciles and idiots. Epileptics. General paralytics.	Other forms of insanity	Paid on acct. of sal. and exp. of trustees  Total.	PER CAPITA COST PER ANNUM—On daily average actually in asylum and net current exp's including salaries On daily average on asylum register and net current expenses, including salaries Average ratio of attendants to patients Total No. employees, all in and outdoor

TABLE No. 2-Concluded.

		Carthage.			Gallipolis	ý		Toledo.		1	Totals.		
	Males,	Femsles.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	LatoT.	
CHENERAL RESULTS FROM OPENING OF—First admission—Readm	2,653 1,313	2,320 1,338	4,973 2,651	543	324	867	1,934	1,748	3,682	16,957 5,253	15,345 5,247	32,302 10,500	EXEC
Total	3,966	3,658	7,624	547	324	871	2,143	1,922	4,065	22,210	20,592	42,802	UTI
DISCHARGED Recovered. Improved. Stationery or transferred. Died.	1,389 629 450 1,013	1,443 580 278 823	2,832 1,209 728 1,836		4 11 17	15 91 76 61	480 252 283 a 444	409 317 201 <i>b</i> 371	889 569 484 6 815	7,863 2,719 3,714 4,347	7,339 3,010 3,438 3,362	15,202 5,729 7,152 7,709	VE DOCUM
Total	3,481	3,124	6,605	195	<u>\$</u>	243	1,459	1,298	2,757	:8,643	17,149	35,792	ENT
RESULTS FOR THE YEAR— Remaining November 15, 1895	471 134	516 97	987 231	315 136	197 110	512 246	634	614	1,248	3,459 1,108	3,265 897	6,724 2,005	15.
Total	909	613	1,218	451	307	758	844	791	1,635	4,567	4,162	8,729	
First admission	€ ⊋	65 32	150 81	132	110	242	30	156 21	336	869 239	713	1,582 523	
p Discharged recovered—First admission Readmission	91	16	35	=	4	15	<b>₹</b> 80	29	10	276 42	217	493 100	
Total recoveries	27	25	52	=	4	15	19	38	87	318	275	593	

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369 200 200 200	1,668	7,029 7,042 6,763 153	464 869	218 342 80 4,896	\$893,798 52 42,077 68	\$935,876 20	
163 88 188	714	3,432 3,429 3,293 74	226 414	85 134 5 2,499	\$88	£63;	
208 318 318	954	3,597 3,613 3,470 79	238 455	133 208 75 2,397			
92 39 7 109	327	1,308 1,325 1,276	75 275	7.5 21 1,212	,142 91 ,404 26	\$140,547 17	110 15 106 07 1 to 13 176
884	167	624 640 621	35 125	28 3 593	\$134,142 6,404	\$140	ı
32 16 d 61	169	684 685 655	40	47 18 619	-    		
323	130	628 598 546 52			\$69,125 67 5,100 00	\$74,225 67	126 60 115 60 1 to 25 61
1098	31	276 256 238 18			\$69 5.4	\$74,	-
57 18 13	66	352 342 308 34			·   		
40 27 80	199	1,019 1,006 1,006	22 48	50 75 14 810	\$163,222 17 7,800 00	\$171,022 17	170 00 170 00 1 to 13
16 12 27	8	533 524 524	25.	24 32 440	\$163	1714	_
24 15 53	119	486 482 482	10	26 443 14 370	1		
Discharged improved	Total	Remaining November 15, 1846	CONDITION OF PATIENTS NOV. 15, '96. Probably curable cases	CHRONIC AND PROBABLY INCURABLE. Imbeciles and idiots Fpileptics General para ytics Other forms of insanity	Net current expenses for year	Total	Per Capta Cost Per Annum— On daily average actually in asylum and net current exp's including salaries On daily average on asylum register and net current expenses, including salaries, Average ratio of attendants to patients Total No. employees, all in and outdoor.

<sup>a Includes 18 not insane.
b Includes 14 not insane.
c Includes 22 not insane.</sup> 

TABLE NO. III.—STATISTICS OF BENEVOLENT INSTITUTIONS.

	Feebl	Feeble-minded youth	youth.	Dea	Deaf and dumb.	nb.		Blind.	
	Males.	Females.	Total.	Males.	Females.	TefoT	Males.	Fensales,	Total.
Inmates received since organization	1,457	935	2,392			2,787			1,766
Remaining November 15, 1895Received during the year	582 a37	392	974	186	185	371	177	119	2:6
Total for the year.	619	412	1,031	*254	230	484	*226	138	364
Sent to parents or guardians	19	01 x	29 15	34.	30	40	10	2	ស្តីស
Orsulat Reu Grandatered Transferred to other institutions				က	6	12	6	4	10
Runaway Died Remaining November 15, 1896	1 7 585	388	1 13 973	215	200	415	192	121	313
Total for the year	619	412	1,031	*257	239	496	*214	128	342
Daily average Number of officers and teachers Number of employees			933 38 140	192 12 14	186 29 45	378 41 59	11	17	252 44

TABLE No. III-Continued.

	Ohio So Ori	Ohio Soldiers' and Sailors' Orphans' Home.	Sailors' ne.	Ohio Sol	Ohio Soldiers' and Sailors' Home.	Sailors'		Total.	
	•								
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Pemales.	.latoT
Inmates received since organization	3,427	1,630	5,057	3,380		3,380	8,264	2,565	15,382
Remaining November 15, 1895	456	358 60	904	1,330		1,330	2,821	1,054	3,875 879
Total for the year	628	418	1,046	1,829		1,829	3,556	1,198	4,754
Sent to parents or guardians. Temporarily absent Discharged Graduated Transferred to other institutions	64 17. 2	44 25	108 42 2	220 350		220 350	29 263 419 26	12 38 44 88 88	301 463 64 64
Died Remaining November 15, 1896.	544	348	2 892	73 1,186		73 1,186	$\begin{array}{c} 83\\2,722\end{array}$	1,057	91 3,779
Total for the year	628	418	1,046	1,829		1,829	3,547	1,197	4,744
Daily average	2 44	62	896 67 84	1,334 6 135		1,334	1,526 34 193	858 88	3,793 181 463

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TABLE No. III-Continued.

Blind,	salaries
Deaf and dumb.	\$85,056 87 175 60
Feeble-minded youth.	\$129,560 16 138 86 794 06
	Current expenses including salaries

TABLE No. III-Concluded.

Total.	\$576,085 15 4,056 00 3,094 01	
Ohio Soldiers' and Sailors' Ohio Soldiers' and Sailors' Orphans' Home.	\$155,315 55 149 20	
Ohio Soldiers' and Sailors' Orphans' Home.	\$15,776 03 164 91 4,056 00 2,299 95	d.
	Current expenses including salaries	a Includes three temporary absent and three readmitted. A includes three temporary absent. Cholindes eight temporary absent and three readmitted. A includes tem readmitted. A includes fourteen readmitted. A includes twenty-four readmitted. A focials do not balance.

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TABLE No. IV-STATISTICS OF PENAL AND REPORMATORY INSTITUTIONS.

	Ohio F	Ohio Penitentiary.	tiary.	State 1	Ohio State Reformatory.	atory.	Indus	Boys' Industrial School.	thool.	Indus	Girls' Industrial Home.	ome.
	Males.	Females.	.fsfoT	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Inmates admitted since organization	28,236	576	28,812		!						1,765	1,275
Remaining Nov. 15, 1895 Received during the year ending November 15, 1896	1,985 1 249	37	2,022	212		212	789 445		789 445		342	342
Total for the year	3,234	49	3,298	212		212	1,234		1,234		423	423
Transferred to other institutions.  Died Discharged by expiration of sentence.  Returned to parents or guardians	166 28 885 74	23	166 2907 4	က		ေ	8 8		က က		80,80	:50   :50
Pardoned Out on parol. Escaped. Remaining November 15, 1896	67 25 20 20 20	e	55 25 25 25 25 26 25 25 25 25 25 25 25 25 25 25 25 25 25	1 3 905		305	380		882		347	347
	3,234	64	3,298	212		212	1,234		1,134		<b>4</b> 23	423
Daily average. Officers, guards and teachers. Employees.	2,137	37	2,174	171 42 5		171 42 5	773 70 8		773			

TABLE No. IV-Continued.

	Ohio Penitentiary.	Ohio Penitentiary. State Reformatory. Industrial School. Industrial Home.	Boys' Industrial School.	Girls' Industrial Home.
Net current expenses, including salaries and wages, not farm products	\$288,807 10 132 39 \$230,947 21		\$55,116 84 108 22 49,685 33	\$33,564 76 97 29 4,445 25
				:

a Includes \$1,856.11, value of earnings for the year.

r Discharged by special act of board of trustees.

n Discharged by order of courts.

r Discharged for new trial—3.

j Discharged for new trial—3.

k Value of earnings for the year.

TABLE No. IV-Continued.

	Canton	Canton Workhouse.	house.	Ci Hous	Cincinnati House of Refuge.	ıti fuge.	S <sub>N</sub>	Cincinnati Workhouse.	iti se.	SÃ	Cleveland Workhouse.	še.
	Males,	Females.	.lstoT	Males,	Females.	Total.	Males.	Females.	Total.	Males.	Pemales.	Total.
Inmates admitted since organization	1,320	120	1,440	8,966	1,936	10,902			92,072	43,897	7,652	51,549
Remaining November 15, 1895	52 642	8 63	60 705	252 344	1117	369 455	399 2,313	115	514 3,092	411 3,143	24.3 24.3	3,386
Total for the year	694	7.1	765	296	228	824	2,712	894	3,606	3,554	301	3,855
Transferred to other institutions.  Died  Discharged by expiration of sentence	615	65	089	208	1 04	4 248	9 2,198	14 1714	23 3 2,912	3 5 2,976	3 1 219	3,195
Returned to parents or guardians Pardoned							196	72	268	33	၈ ဘ	#8
Out on parole				114	23	166	دئ دئ دد	ū	t~ 65	S	9-	115
Remaining November 15, 1896.	7.9	9	æ	271	135	406	30.0	88	390	373	· 32	429
Total for the year	694	71	765	296	228	824	2,712	894	3,606	3,554	301	3,855
Daily average	36 38	1	07 28	261 25	117	378 43	369 28	105	474 39	32 32	52	4 <del>4</del> 88

TABLE No. IV -Continued.

	anton Workhouse.	Canton Workhouse. House of Refuge.	Cincinnati Workhouse.	Cleveland Workhouse.
Net current expenses, including salaries and wages, not farm products	\$5,790 32	\$62,655 33	\$55,898 02	\$45,953 02
	7 55	165 75	120 45	103 97
	7 55	817,000 00	34,082 46	747,835 92

b Value of carnings for the year.
 c Value of carnings for the year.
 m Includes \$10,567.88, value of carnings for the year.

TABLE No. IV-Continued.

	ĕĞ	Columbus Workhouse.		Dayton Workhouse. Toledo Workhouse.	Workh	louse.	<b>Tole</b> do	Work	iouse.
	Males,	Females.	.latoT	Males.	Females.	.fsto <b>T</b>	Males.	Pemales.	.Lotal.
ed since organization				12,085	1,099	13,184			
Remaining November 15, 1895	388	8.	482	704	2.8	110	1,212	154	1,366
Total for the year	388	94	482	786	ᅙ	803	1,356	155	1,411
Transferred to other institutions  Died  Discharged by expiration of sentence  Returned to parents or guardians	318	88 -	108 121	427	100	4 827	1,073	122	1,195
Pardonedfsout on paroleFs.capedRemaining November 16, 1896	99	(m) (N)	3000	88	4	72	11 88 15 65	13 10 10	11 101 25 75
Total for the year	88	98	482	786	101	88	1,256	155	1,411
Daily average. Officers, guards and teachers.	2.	-	£ ∞ −	10	-	- 1	% c		91

TABLE No. IV-Continued.

	Dayton Workhouse. Toledo Workhouse	\$10,025 45 69 57 711,333 75	
:	Dayton Workhouse.	\$13,156 00 14 57 \$9,135 68	
i		\$6,266 09 95 86 4346 65	
		Net current expenses, including salaries and wages, not farm products	

d Value of earnings for the year.
 f Value of earnings for the year.
 l Value of earnings for the year.

TABLE No. IV-Continued.

	Xenia	Xenia Workhouse.	louse.	Z <sub>E</sub> Wo	Zanesville Workhouse.	<b>9</b> 9		Total.		
	Males.	Females.	Total.	Malcs.	Females.	Total.	Males.	Females.	Total.	EX
Inmates admitted since organization	2,090	217	2,307	5,084	310	5,394	101,678	13,675	207,425	CECU
Renaining November 15, 1895 Received during the year ending November 15, 1896	185	15	88	46 811	57	51 868	4,093	698 1,713	4,791	TIVE
Total for the year	205	15	220	857	62	919	15,741	2,411	18,152	DO
Died Discharged by expiration of sentence	1 158	10	1 168	790	58	1 848	182 48 9,951	1,446	189 120 11,397	CUMEN
Actioned to parents of guardians. Out on parole Escaped Remaining November 15, 1896.	28 9 4		26 19	13 2 51	4	55 to 13	377 794 46 4,283	88 80 11 695	463 874 57 4,978	.13.
Total for the year	205	15	220	857	62	979	15,741	2,411	18,152	
Daily average Officers, guards and teachers Employees	63	,	67	3.50		2000	4.252 392 19	323	4,640 435 19	

TABLE No. IV-Concluded.

	Total.	\$340,139 12 74 78 n378,288 94
· · · · · · · · · · · · · · · · · · ·	Zanesville Workhouse.	\$19,142 57 22 15 \$1,117 79
F 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Xenia Workhouse.	\$3,763 62 166 5
· · · · · · · · · · · · · · · · · · ·		Net current exp's, including salaries and wages, not farm products  Cost per inmate for the year

g Value of earnings for the year. " Includes : ድሚ 455.17, value of earnings for the year.

TABLE No. V-County Infirmaries-Receipts Per-Diem and Expenses of Directors and Per Capita Cost.

Received from.		Poor fund.	\$3,541 93	8,304 23 4,802 35 6,133 86 8,979 00	5,309 34		2,321	3,889 17 12,014 93 5 239 91 6 052 03	3,640	00 18,514 01 5,562	01 6107.806	
Rec		Dow tax.	\$573 25	1,498 12 2,845 14 4 560 69	5,309 34	1,553 35	590 88	8,125 76 730 89	936 42	9,515 15 1,529 35	3,206 63106,008 99	2,430 40
	Counties,			Ashland Ashlabula Ashlans	Auglaize	Belmont Stown. Builer	Zarroll	Lhampaign Bark	Clinton	Olumbiana. Oshocton	Jrawford Juvahoga	Jarke

Erie Bairfield	2,872 10	5,841 65	8,713 75
Fayette			
Franklin			
Fulton			
Gallia			
Geauga	- 1		
Greene			
Guernsey			
Hamilton	13,842 56		
Hancock			
Hardin		3,406 81	
Harrison		2,343 89	
Henry			
Highland	2,076 13	4,622 85	
Hocking			
Holmes			
Huron			
Iackson			
Tefferson			
Knox			
Løke			
Lawrence			
Lieking	3,676 66	8,153 42	
Гокан			•
I,orain		6,424 33	6,424 33
Lucas			
Madison	2,466 28	4,525 29	
Mahoning			
Marion	3,139 02	3,624 79	
Medina			•
Merks		2,789 30	
Michael		:	
Monroe			
Montgomery			
Мотран			
Morrow			
Muskingum	46,418 63	5,427 08	11,845 71
NODE			

TABLE No. V-Continued.

		EXECUT	LVE	JÜ	C	) IM	L	N.I	Э.										
		Total.	<b>\$3</b> ,971 79	6.302 88	11,534 52	1,864 71	8,026 45	4,863 99	7.898 50	22,837 32	7,235 50	5,206 43	79 808'0	0,303 74	15,614 51	7,102 09	6,429 61	3,000 00	2,539 00
Received from.		Poor fund.					4,141 11					658 40			3,319 68	1,249 73		Z,515 U0	2,050 05
		Dow tax.	\$3,971 79	6.302 88															488 95
	Counties.		Ottawa	Perry	Pickaway	lyke	Portage	Preble	Richland	Ross	Sandusky	Scioto	Seleca.	Stark	Summit	Trumball	Tuscarawas	The state of the s	van wert. Vinton.

· ; •	\$289,809 57		Total
		83,144 83	Cincinnati City
6,217 09	4,134 27	2,082 82	•
5,798 96		5,793 96	
3,333 83	1,709 39	1,624 44	***************************************
7,760 70	5,260 70	2,500 00	Wayne
6,587 08	2,818 68	Washington 3,718 40	
8,581 72	7 1000		

TABLE No. V-Continued.

	.lstoT	\$163 56 200 00 477 04 1,015 75 133 48 478 13 1,486 84 555 00 1,10 07 748 95 288 54 288 54 288 54 288 54 289 54 340 01 1,028 52 62,260 60 62,260 60 63,260 60 64,260 60	
es.	All other sources,	\$94 50 235 50 786 50 487 60 67 80 8,367 71 454 65	
outside sourc	Expenses of inmates paid by themselves or friends.	200 00 38 47 36 00 36 00 206 00 225 60 70 00 100 00	
Received from outside sources	Expenses of inmates refunded by other counties.	\$114 73 10 67 10 67 10 7 33 107 38 429 95 71 50 34 90 221 35 100 99 138 74 138 74 138 74 138 74 167 15 578,196 06	
R	Sale of other articles.	745 61 317 31 127 35 78 39 107 01 332 89	
ł.	Sale of farm produce and stock,	557 85 651 77 85 651 77 85 651 77 85 651 77 85 65 65 65 65 65 65 65 65 65 65 65 65 65	
	Counties.	Adanis.  Allen Ashland Ashland Ashlabula.  Athens Athens Athens Belmont Brown Butler Caroll Clark Clermont Clermont Clermont Clinton Columbiaua Coshocton Coshocton Cuyahoga Darke Darke	Delaware

367 23				61	43   7.927	966	66.199	50 2 330	1018					204	202	25 522	25 756			2,080	92 571	15 345	201	672		1.163	1,018	00	98 2,030	123					333	72 1,360	
201 00		1,233 63 9		20	500 59   6.773	- 3 <del>-</del>	5	: 8	3 %		2000				6.5	155 to	-	11 79		180 00			8	8	568 00 73	0.5			8			-		00 06	7.5	69	45
		401 65			601 23				20 066		65 50					284 20			27 00		8 25				890 16					123 12		158 36		61 50			
		148 78							00.00										58 00			_			90 7							306 60	- :	75 26			
166 23																					76 75						929 00							225 71			545 63
Brie Briefell	Favette	Franklin	Fulton	Gallia	(Trens		Hamilton	Tonocot	Hardin	Torsion:	30.11	[15][17]	[H]gnland	110681118	TOTALES	Turon	ackson	efferson	Knox	ake	awrence.	Licking	ั้งยลม	orain	'ucas	Madison	Mahoning	Marion	Medina	Meivs	Mercer	Miami	Monroe	Montgomery	Morgan	Morrow	Muskingum

## EXECUTIVE DOCUMENTS

TABLE No. V-Continued.

	EXECUTI	VB DC	CUI	ME	NTE						
	Total.										532 04 1,630 00 575 21
si si	All other sources.		\$162 04	689 92		10 00	26 21	159 16	374 92	21 45	249 43
Received from other sources	Expenses of inmates paid by themselves or friends.	\$167 20	100 00				599 14			406 72	
eceived from	Expenses of inmates refunded by other counties	\$4 25 130 97	85 11		53 64 35 35				79 38 609 39 947 30		
<b>X</b>	Sale of other articles.		\$183 94			33 95	102 16	110 00		51 00	
	Sale of farm produce and stock.	\$264 80 154 21			318 11				92 50		532 04 1,151 45 308 77
	Counties.	Ottawa Paulding Danding	Ferry Pickaway Dit.	Portage	Preble Putnam	Richland Ross	Sandusky	Seneca	Shelby Stark.	Sullinit Trumbull Tracerawas	Union Van Wert Vinton

22 6
81 97 68 102
691 16 49 80 304 82
134 08
\$30,137 33 \$5,343 49 \$70,493 69 \$17,976 34 \$21,687 73

TABLE No. V-Continued.

MARCUII	VE DOCUMENTS.
Per diem and expenses of di- rectors.	2.825 1, 3.248 3.825 0.05 3.75 0.05 5.75 0.05 0.0
Per capita cost per inmate.	\$38 00 116 36 15 10 10 10 10 10 10 10 10 10 10 10 10 10
Paid into county treasury.	\$163 56 200 00 477 04 1,015 75 133 48 478 13 841 39 1,486 84 555 00 1,210 07 748 95 218 94 288 54 573 18 390 43 7 61,974 41 890 43
Net current expenses of in- firmary.	\$3,951 62 8,727 69 4,727 69 4,825 33 1,963 25 4,427 21 4,831 21 11,616 26 11,616 26 11,265 99 11,265 99 11,265 99 11,265 99 17,929 99 17,920 95 2,178 11 5,122 85 17,122 85 2,178 11 5,222 85 2,178 11 5,222 85 2,178 11 5,222 85
Countics.	Adams. Allen Ashland Ashland Ashlandla Athens. Athens. Auglaize Brown Butler Carroll Champaign. Clark Clernout. Clounbiana. Columbiana. Crawford Cuyahoga. Darke. Defance

Brie	8,346 52	367 23	89 75	00 889
Fairneig	25.5	049 12		000 000 02 230
Tayette	98	2,0/3 20		De 760
Franklin	77	2,206 60		4,0%
Fulton	28	1,276 28		603 90
Gallia	75	2 2 2		520 00
Geauga	46	838 75		153 50
Greene	282	7,927 94		346 40
Guernsey	61	226 08		225 00
Hamilton	32	6.199 94		1.000 00
Hancock	44	3,330 90		827 50
Hardin	96	1,016 81		732 50
Harrison	24	608 65	•	630 00
Henry	78	1,139 41		725 00
Highland	18	424 80		632 50
Hocking	69	432 00		671 95
Holmes	- 40	958 33		529 64
Huron	49	522 17		89) 25
Jackson	71	229 292		+32 50
Jefferson,	21	11 79		300 00
Knox	67	235 00		746 85
Lake ,	8	2,080 00		200 00
Lawrence	65	571 92		554 50
Licking	- 80	345 00		850 00
Logan	18	201 89		1,041 40
Lorain	34	64 64 64		584 50
L'ucas	<b>8</b> :	2,234 07	89 99	3,218 34
Madison	- 98	1,163 71		819 25
Mahoning		1,018 00		2,075 00
Marion	19	963 62		1,415 09
Medina	64	2,030 93		636 65
Meigs	84	123 12		1,159 75
Mercer	94	536 65		220 00
Miami		1,357 41		890 10
Monroe	17	447 73		493 50
Montgomery	54	452 47		2,347 50
Могgan	<u>x</u>	323 99	•	245 10
Morrow	40	99 098'		490 00
Muskingham	66	,037 72	81 88	90 009
Noble	33	471 63		1,017 50
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Per diem and expenses of di- rectors.	2897 1,889 27 970 27 970 75 688 53 150 89 115 38 728 60 729 60 729 60 740 60 740 66 740 740 740 740 740 740 740 740 740 740
Per capita cost per inmate.	866 844688248 22288223688 84 8828288 22828883024
Paid into county treasury.	2438 25 28 18 28 18 28 18 28 28 28 28 28 28 28 28 28 28 28 28 28
Met current expenses of in- frmary.	\$3,535 54 2,763 54 10,973 65 10,973 65 1,749 31 5,897 02 4,087 42 7,852 05 7,855 21 6,655 44 15,312 87 15,008 66 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54 6,391 54
Counties.	Ottawa Paulding Perry Perry Pickaway Pickaway Portage Portage Portage Preble Putnam Richland Ross Sandusky Scioto Seneca Sielby Stark Summit Trumbull Trussrawas Union Van Wert Vietny

362 00	1,040 00			<b>\$76,486 94</b>
71 39			38	\$ 76 32
1,049 42			134	\$145,706 88
7,532 30	6,872 87 2,639 43	4,846 15	9	44
Warren	Wayne Williams	Wood	Cincinnati City.	Total

a Includes \$18.40 cigarette tax.

6 406.60 cash balance on hand and not paid into the county treasury.

721.68 cigarette tax.

6 12.40

77.52

6 Overdrawn 56.63.80

7 Does not include \$8,386.19 received from outside sources and not paid into city treasury.

TABLE NO. VI.—COUNTY INFIRMARIES—CLASSIFIED STATEMENT OF EXPENDITURES.

	,	.fstoT	\$288	2,234	1,584	2,880	1,364	1,645	1,481	1,718 00	860	1,665	3,228	1,234	1,402	3,335	1,627	000,1	20,669	932	1,690
ges.	•11	Physicia								200 00									-		8
Salaries and wages.	other em- s.	Wages o								718 00											
Sal		Matron,	\$100 00										240 00		00 00;		200 00		2000		100 00
	;ευςευς:	Burragus	300 00	00 000	00 009	00 009	200 00	200 00	2008 2008	920	300 00	437 00	250 00	646 25	00 009	840 00	0000	2000	0000,7	435 00	200 00
	Counties.		Adams	Allen	Ashland	Ashtabula	Athens	Auglaize	Belmont	Brown	Carroll	Champaign	Clark	Clermont	Clinton	Columbiana	Coshocton	Crawford	Cuyahoga	1/41 kc	Delaware

Brie	700 750 80 80 80	88	772 61 612 00	88	1,820 00	
Fairfield						
rayette						
FIRITE						
F ulton						
ng ng ng ng ng ng ng ng ng ng ng ng ng n						
Greene						
Tamilton						
Hancock		220 00				
Hardin						90
Harnson						· A
MEDITY						<b>Z</b> .1
inguland						,
Hocking						v
Holmes		400 00				Τ.
Huron						c
Jackson						, 1
Jefferson						n
V.110X		150 00				
Lake						•
T awrence						
Terms						***
Logan T		•				
T COTAIN		200 00				4 4
14LC35						
Maulson						40
Manoning				_		•
Marron						
Melina						
Metgs						
Mercer		300 00				
N. C. C. C. C. C. C. C. C. C. C. C. C. C.			- 7			
Monitoe		90 00g	6,283 73			
The state of the s						

## EXECUTIVE DOCUMENTS.

TABLE No. VI-Continued.

	RANCUI	LVB	ı	,	C		L	,N	1;	3.										
	.ІвтоТ														1,640 74					
g	Ърувісівп.														262 64					
Salaries and wages.	Wages of other em-		1.209 80												778 10					
Sala	Matron.		100 00		200 00		150 00	300 00		400 00			180 00		200 00					
	Superintendent.														4 0 00					
	Counties.	Morrow	Muskingum	Noble	()ttawa	Paulding	Perry	Pickaway	Pike	Portage	Preble	Putnam	Richland	Ross		Seneca	Shelby	Stark	Summit	Trumbull

a Includes salary of matron.

b " all other expenses.

c " groceries, fuel, light and clothing purchased.

TABLE No. VI-Continued.

			:0ck.	Feed for st			300 00		•												686 12 490 96	
				Furniture.	\$20 00	00 009	112 74		148 98	30 57	283 20		75.00	3	91 18	88 89	98 88 88	200 80	30 75	8	1,110 01	151 88
and of for	rended to	sl ex-	19unj	Coffins and penses.	\$133 00	168 00	30 00	78 00	54 50	32 50	106 50	88	65 55 60 55	88	484 16	188 15	140 00	152 00	88 88	72 90	1,274 52	38 38
Amount extended for	wa mnomy			Clothing.									1,394 40								1 507 95	479 02
			gpt.	Fuel and li	1	•-	_			_			1,318 01		-			-	_		: -	97 10
		-ivorq	рпв	Groceries.	\$1.045 33	1,790 54	832 81	2,961 43	1,001 78	352 70	2,651 63	1,073 84	5,206 53 300 00	1.751 99	3,668 67	2,040 88	935 61	5,443 96	80 988	349 33	78,214 13	389 64
			Counties.		Adams	Allen	Ashland	Ashtabula	Athens	Auglaize	Belmont	Brown	Butler. Carroll	Chambaign	Clark	Clermont	Clinton	Columbiana	Coshocton	Crawford	Cuyahoga	Defiance

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Delaware		00 069		_		_
LATIE.		915 69	682 38	165 25	64 75	258 01
rairneid				_	_	-
Fayette				_	-	
Franklin				_		
Fulton				_	40 20	
Gallia				_	_	
Geauga				_		Ξ
Greene				_		
Guernsey				:		
Hamilton						
Hancock					98	
Hardin				43 00		
Harrison						300 008
Henry.						
Highland					•	1.300 00
Hocking						
Holmes						
Huron						:
Jackson					-	239 05
letterson						
Knox					_	:
Lake					100 00	_
Lawrence						
Lucking					-	
Logan					-	123 05
7.0rain				•	-	
Lineas				-		
Madison				_		
Mailtoning				_		_
Marion				_		- :
Medina				_		_
Metgs				67 95	_	491 32
Mercer		:		-	•	- :
Miami		943 47			15 00	337 99
Montromery	12,504,36		:	•	:	00 040
Morgan		93 45	449 74	150 00	25 FO	A0 7/2
			_	-		•••••••

TABLE No. VI-Continued

	HARCUL	VII DOCUMBINICA	
	Peed for stock.	\$200 00 122 27 117 98 84 05 500 00 225 25 252 25 254 01 31 13 269 80 268 80 268 80 268 80	256 20
	Pumiture.	84 86 86 86 86 86 86 86 86 86 86 86 86 86	
pended for	Coffins and funeral ex- penses.	25 25 25 25 25 25 25 25 25 25 25 25 25 2	
Amount expended for	Clothing.	785 82 812 61 1112 76 1112 76 1112 76 1112 76 183 74 164 93 164 93 164 24 165 37 166 37 168 32 169 3	
	Fuel and light.	\$500 00 1,007 89 44 15 527 00 1,375 50 1,375 50 86 60 846 50 1,288 48 1,288 48 1,288 48 1,288 48 1,288 48 1,288 48 1,289	
	Groceries and provi- sions.	4,661 03 586 82 586 82 378 83 3,625 93 1,344 73 1,244 73 1,249 16 5,086 88 805 53 1,469 47 1,	
	Counties.	Morrow Muskingum Noble Ottawa Paulding Perry Pickaway Pirkaway Pirke Portage Portage Portage Portage Softend Ross Sandusky Scioto Seneca Shelby Stark	Trumbull

Tuscarawas		215 41				158 15
Union	506 21	522 18	97 15	52 00	35 00	
Van Wert.		59 72				
Vinton						140 60
Warren	2,807 65					822 69
Washin: ton			580 97			555 36
Wayne						00 098
Williams						36 10
Wood	915 05		622 54	58 50	98 33	95 26
Wyandot			632 95			508 88
Cincinnati city	26,054 46	7,771 76	4,445 16		2,951 79	6,752 17
Total	\$275,561 08	\$59,447 98	\$54,808 60	\$12,146 18	\$11,757 33	\$30,102 32

TABLE No. VI-Continued.

		EXECUT	IVE DOCUMENTS.
	irs.	Paid for ordinary repa	\$300 00 511 76 1,469 27 1,300 90 1,300 90 1,002 41 1,002 41 100 00 100 00 220 86 218 67 121 72 220 86 3623 07 252 98
The state of the s	-ni Jo	Total current expenses of firmaries.	\$4,115 18 8,927 69 4,802 35 4,500 69 5,309 34 5,309 34 5,309 34 12,014 98 6,653 03 6,653 03 6,653 03 6,653 03 114,449 99 114,449 99 8,417 62
	-xə 's	Total ordinary expenses clusive of salaries wages.	\$3,526 55 6,692 74 3,218 27 6,098 64 3,196 20 3,196 20 1,429 32 10,227 39 1,227 39 1,227 39 1,227 39 1,227 39 1,227 39 1,227 39 1,241 90 1,238 42 1,238 42 1,238 42 1,546 53 8,780 78 6,460 04 6,460 04
	Amount expended for	All other ordinary ex- penses.	\$1,340 42 1,999 53 22.7 18 22.7 18 1,782 02 1,782 02 1,782 02 1,782 02 1,782 02 1,782 02 1,782 02 2,371 00 2,371 00 2,371 00 642 29 2,161 38 2,89 96 3,872 93 1,804 46
	Amount ex	Іпѕитапсе.	\$40 00 20 50
		Counties.	Adams Allen Ashland Ashland Ashtabula Athens Athens Athens Athens Brown Brown Brown Carroll Champaign Clark Clermont Colinton Collubiana Coshocton Crawford Cuyahoga Dafkee

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a 195 25	14			
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	91			
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130 00	- 66			
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	:	4,557 90	5,057 90	
	3,810 51			4,081 21
	- 80			416 13

TABLE No. VI-Continued.

	EXECUT	TAR D	OC	UM	EN	13	•							
.8	Paid for ordinary repair	\$66 00 637 90				951 20							1,685 25 225 90 225 90	
-ui 3	Total current expenses o firmaries.	£3,507 00 11,845 71												
-sa 's	Total ordinary expenses clusive of salaries wages.	\$2,175 00 9,355 91												
Amount expended for	All other ordinary ex- penses.	\$243 00 1,837 80					594 31		8,507					
Amount ex	Іпѕитапсе.	\$100 00 2 00								24.08	к 1,130 13			
	Counties.	Morrow	Ottawa	Paulding	Pickaway	Pike Portage	Preble	Richland	Ross	Sandusky	Seneca	Shelby	Stark	Trumbull

on 811'0##	\$639,532 01 \$863,376 44	\$639,532 61	\$5,440 13 \$105,717 UT	\$3,440 13	10tal
1,572 02	83,144 83	67,609 16	c 18,061 80		Cincinnati City
1,006 37	_	4,508 66	953 88		Wyandot
255 17	5,793 96	4,307 96	651 16	9 1,000 00	Wood
118 93			_		Williams
1,100 00	7,760 70				Wayne
	_	2,000 40	2,185 60		Washington
	8,581 72	••			Warren
	2,539 04				Vinton
_		1,946 49			Van Wert.
246 00	_		1,019		Union
274 52	6,429 61	-			Тизсага was

a Stock bought.

b For putting in new gas well for fuel and light.
Includes \$1.52.83 expended for improvements.
d Includes \$52.85 expended for cold storage building.
d Cost of drilling gas well.

TABLE No. VII.—County Infirmaries—Statistics for the Year ending September 1, 1896.

	r.					_				_									_	192
	the year	Lemales.	72	œ !-	35	121	85	41	163	99	103	37	69: -	<u> </u>	2 7. 5 7.	104	8	62	648	88
	1 Offi	Males,	33	138	62	303 304	86	5	210	96	273	8	38	8 :	: æ	252	8	94	1,616	<b>3</b> 5
	he	Total.	88	148	28	214	104		218	85	246	∓ ;	3	1 2	66	261	95	6	1,678	112
1	Total for the year.	Females.	47	46	12	5	47	77	83	98	99	위:	4 6	£ <b>?</b>	<b>3</b> 23	8	47	34	220	<b>%</b> %
1	Tot	Males.	8	105	_ 66	141	57	4	125	26	187	57	20.	25	5.6	195	48	26	1,158	% 4
ear.		Total.	81	:	:	:	က	-	က		20		.77	7"		9			22	
Received during the year	Born.	Females.	61	:			81		81		:		20 0	•			_		#	
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d dur	tate ions.	Total.					30			<del>.</del>	_	<u>:</u>	<u>.</u>	*	2	_	_	_	_	
- '- ceive	From state institutions	Females.		:	:		21		<u>:</u>	:	:	<u>:</u>	<u>:</u> -	-	<u>:</u>	_			<del>-</del>	
Re	Fr	Males.		:	<u>:</u>	:	_		<u>:</u>	<u>۔</u>	_	<u>:</u>	<u>:</u>	<u> </u>	_	<u> </u>				
ľ	ships.	Total.																	-	 22.23 24.23 25.23 26
,	From townships.	Females.	20	14	2	22	<b>x</b>	·-	22		15	 	= =	<b>,</b>	- 2	8	13	9	376	22
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aining	r 1,	Total.		89	38	109	92	£	155	69	2 2 2 3		3 5	3 6	6.4	95	22	64	587	<b>38</b> %
oniniamer remaining	September 1895.	Females.	63	?? ??	15	<b></b>	35	<u>:</u>	5	ह्य :	‡;	7.5	8 8	3 6	3 6	3	34	83	129	# ×
ק ק	Set	Males.	17	38	3	<b>≅</b>	7										38	88	458	8 %
		Countres.	Adams	Allen	Ashland	Ashtabula	Athens	Auglaize	Belmont	Вгомп	Butler	Carroll	Champaign	Clark	Clinton	Columbiana	Coshocton	Crawford	Cuyahoga	Darke

254 244 273	146 946	8	<b>2</b> 25	360	133	602	135	8 8	<u>4</u>	15.5	95	101	242	173	286	157	96 6	25g	206	130 26	808 808	693	170	530 230	164	140	152	84	247	143	9 <b>9</b> 8	117
<u>4</u> 88	8 8	4	<b>8</b> 8	149	25	149	75	22.5	₹	2	4	55	<b>3</b> 5	œ	113	28	37	135	78	28	8	<b>1</b> 8	8	103	48	69	2	8	102	83	8	£ 2
55.58 8	8 6	43	28	241	51	453	9	120	S 25	8	51	46	158	æ	173	66	23	121	128	75	108	499	114	427	116	71	<b>3</b>	72	145	8	662	20 20 20 20 20 20 20 20 20 20 20 20 20
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25.4	24.5	24	38	107	43	82	21	52	14%	4	જ્ઞ	æ	22	69	2	88	ន	96	45	34	62	125	35	63	35	8	\$	22	28	88	123	88
98		22	88 E	173	8	273	+5	<b></b> ₹	- - - - -	25	ස	73	86	29	<u> </u>	19	4	8	8	47	<u></u>	88	8	<b>5</b> 68	2	4	49	37	200	22	435	# # # # # # # # # # # # # # # # # # #
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Delaware Brie Fairfeld	Fayette. Frank lin	Fulton	Gallia	Greene	Guernsey	Hamilton	Hancock	Hardin	Henry	Highland	Hocking	Holmes	Huron	Jackson	Jefferson	Кпох	Lake	Lawrence	Licking	Годан	Lorain	Lucas	Mad1son	Mahoning	Marion	Medina	Meigs	Mercer	Miami	Monroe	Montgomery	Morgan

TABLE NO.IVII-Continued.

	Numb Sep	Number remaining September 1,	aining r 1,				Rece	ived o	Received during the year.	the	year.				Total	Total number for	r for
	ı	1895.		From	From townships.	ips.	Fron insti	From state institutions	is.	Born.		Tot	Total for the year.	pe			
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total. Males.	Females,	Total.	Males.	Females.	Total.	Maleş.	Females.	Total.
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	49	37	98	14	6	<u> </u>				· না : ::	3	£	48	111	113	8	197
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	7.7	ន	22	33	14	33	:		-		81	25	88	83	18	3	146
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	26	8 :	85	42	<b>∞</b> (	200	:	:	<u>:</u>	: ro	<b>87</b> (	103	9	149	159	88	<b>3</b>
Tuscarawas	\$	- -	_ ≴	AI AI	48 -	140	<del>:</del>	-	<u>:</u>	<u>:</u> &	— ∾	201	82	7.47	218	122	\$

133 103 74 74 255 238 259 95 95 191 181 161 2,2 %	23,842
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77 88 10 13 13 13 13 13 13 13 13 13 13 13 13 13	14,986
81 157 1145 1145 1160 54 126 93 1367	15,231
88 22 22 24 25 38 38 38 50 38	5,483
<b>4889587477</b>	9,748
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4.4	41
w 44	85
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113 113 113 113 113 113 113 113 113 113	1,985
25 25 25 25 25 25 25 25 25 25 25 25 25 2	4,345
933 933 933 941 95 65 68 68	8,611
21 118 118 118 119 120 130 130 130 130 130 130 130 130 130 13	3,373
33 33 33 34 35 36 36 36 37 36	5,238
Union. Van Wert Vinton. Warren Washington, Wayne. Williams. Wood. Wyandot. Cincinnati City	Total

TABLE No. VII-Continued.

	Died.	Males. Females. Total.	2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3
ar.	vay.	Total.	7 12 8 4 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 1 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 1 2
Discharged during the year	Runaway.	Females.	
luring		Males.	- 1 2 4 4 6 7 6 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
urged o	inden- option.	Total.	σ
Dische	Placed by inden- ture or adoption	Ретаles.	4 4
	Plac	Males.	
	ged.	Total.	84 4 8 1 1 1 2 2 2 2 1 1 1 2 2 2 2 2 1 1 1 2 2 2 2 1 1 1 2 2 2 2 1 1 1 2 2 2 2 1 1 1 2 2 2 2 1 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 1 1 2 2 2 2 2 1 1 2 2 2 2 2 2 1 1 2
	Discharged	Females.	24 8 8 8 1 1 1 1 1 1 1 2 1 2 1 2 1 1 1 1 1
		Males.	112 123 120 120 120 171 172 183 183 193 193 194 174 174 174 174 174 174 174 174 174 17
			Adams Allen Ashland Ashland Ashtabula Athens Auglaize Belmont Brown Butler Carroll Champaign Clark Clinton Columbiana Cosbocton Crawford Cuawford C

Delaware Bric Fairfield	21 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	08.00 08.00 1.00	21		<del>-</del>	2 -	9 -	13.4	သ က အ 	7 82
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Morgan. Morrow	۱۰ <u>۱</u>	5- 3] 5- 3]						<b>⁴</b> ∞	<b>∞</b> –	~ 4

TABLE No. VII-Continued.

Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Total.  Discharged.  Discharged.  Discharged.  Total.  Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Discharged.  Total.  Discharged.  Discharg					А	ischar	Discharged during the year.	ring th	le year					
Males.  2. 2. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.		Dis	scharge	d.	Place ture c	d by in	den- tion.	Ā	тажаз	٠	i	Died.		
35     16     5     11     1     3     11     6       16     6     5     11     1     3     4     1       16     6     4     10     9     3     1     3     4       10     9     10     9     1     1     1     2     3       10     9     10     9     1     1     1     1     2     3       10     9     10     9     1     1     1     1     2     3       11     7     1     1     1     1     1     1     4     4       11     7     18     2     2     2     4     9     7     4       11     7     18     2     2     4     9     4     5     4     9     4     2       10     9     25     4     9     9     9     9     9     1 <t< th=""><th></th><th>Males.</th><th>Females.</th><th>Total.</th><th>Males.</th><th>Females.</th><th>Total.</th><th>Males.</th><th>Females.</th><th>Total.</th><th>Males.</th><th>Females.</th><th>Total.</th><th></th></t<>		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	
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Total	3,070	1,488	4,558	35	34	69	158	4	202	765	310	1,075

TABLE No. VII--Continued.

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		Counties	·	Muskingum	Ottawa. Paulding	Ferry Pickaway. Pike	Fortage Preble Putuam Pichland	Ross. Sandusky.	Scioto Seneca Seneca	Stark Summit	Trumbull Tuscarawas

TABLE NO. VII-Continued.

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	Counties.	Adams	Allen	Ashland	Ashtabula	Athens	Auglaize	BC-INIONIC	Brown Butler	Carroll	Champaign	Clark	Clermont	Clinton	Columbiana	Coshocton	Crawford	Cuyahoga	Darke	Defiance

TABLE No. VII-Concluded.

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	Males.	Females.	Total.	Males.	Females.	Total.	Average numborst.
Muskingum	89	28	124	4	40	25	132
Noble.	21	8	47	2	16	97	45
Ottawa	88	<b>5</b> 3	49	12	6	21	9
Paulding	9:	26	8	6	œ	17	88
Perry	45	68	₹;				æ;
:	3 5	86 6	211	57	15	27.5	112
Portage	87	4 8	12,8	24	28	3 4	127
:	40	18	36	83	2	88	
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Richland	4.	<u>.</u>	124	<b>8</b> :	83	යිද්	£13
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• •	: 88	8	64	15 15	) <u>œ</u>	: 83	62
	क्ष	*	22	18	13	31	
Stark	888	8	227	75	ස	105	ន្ត្រ
Trumbull	22	8 89	95	23	17	40	38
	89	44	112	22	18	\$	102

31	88	3 3 3 3		88 85 12	8,481
<b>82</b>	178	8 8		21 469	3,175
12 2	91	13 10 23		161	1,371
11.0	11	13		308	1,804
<del>1</del> 24	22.6	105 105	<del>2</del> &	65 925	8,919
8 23	10	384	22	362	3,397
85	17	20 30	83 88	263	5,522
Union	Vinton Warren	Washington Wavne	Wıfliams	Wyandot	Total

TAME NO. VIII. - COUNTY INFIRMARIES - STATISTICS SHOWING AGES, CLASSES, CAUSES OF PAUPERISM, NUMBER OF BIRTHS

AND NATIVITY.

			EXECUTIVE	DOCUMENTS.		
			Remaining at end of year.	25 28 25 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
		Over 60.	Discharged.	<u>ი</u> თ44∞გიფ44⊄- თ		
		Ove	Received.	19 8 8 13 3 22 42 42 45 11 17 8		
			On hand begin- ning of year.	8128841188411888411888 44 44 44 44 44 44 44 44 44 44 44 44		
		.09	Remaining at end of year.	28 113 105 105 105 105 105 105 105 105 105 105		
		• •	Discharged.	13 54 16 20 20 11 11 19 43 43 65 9		
	٠		Received.	254 100 100 100 100 100 100 100 100 100 10		
	Ages of inmates.		On hand begin.	22 22 23 23 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25		
	es of i		Remaining at end of year.	6 p p 2		
	Ag		Discharged.	22 62 4 10 4 10 1		
		Between 3	Received.	8 1 8 8 1 1 1		
		<u> </u>	On hand begin- ning of year.	7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
		old.	Remaining at end of year.	23 27 4 21-8-21 1		
		years o	Under 3 years old	years o	Discharged.	3
		nder 3	Received,	24 22 - 2111		
li L		, <b>5</b>	On hand begin- ning of year.			
			Counties.	Adams Allen. Ashland Ashlabula Athens Athens Auglaize Belmont Brown Butler. Carroll Clark Clermont Clinton Columbiana Coshocton Crawford. Cuyahoga		

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	Over 60.	Received.	26	တာ တ		12	က	· -	œ	16	7	:	α	15	45	14
		On hand begin- ning of year.	. 62	15	32	₹°	27	31	Ξ	ස	37	88	3 20	2	79	47
		Remaining at end of year.	25 22	នន	46	38	2 %	35	35	88	<u> 5</u> 2	<del>*</del> \$	3 64	33	139	4
		Discharged.	32	88		16	 	11	<u>«</u>	61	43	<u>.</u>	=	: 23	105	37
Ages of inmates.  Between 3 and 16. Between 16 and 60	tween 1	Received.	26	2,8		97	20 20	14	4	ଛ	43		20	61	118	7
	Be	On hand begin- ning of year.	88 25	ន្តន	46	28	2 7	53	53	17	20	24 C	3 %	98	126	4
		Remaining at end of year.	e e	- ro	<b>C1</b>	꾨.	_		2		육·	- 4	1	4	-	
	3 and 1	Discharged.	15	6		24			<u>ო</u>		9°			2	12	-
	tween	Received.		-=	-	₹,	_		4			N 7	•	ж	12	
1	Be	On hand begin- ning of year.		က	31	35			6		47	<b>-</b>		9	_	24
1	1d.	Remaining at end of year.	21 61	-	7	ж.	4	_	9		ۍ .	<b>-</b>	7		8	
1	Under 3 years old.	Бізсhатged.			_ :	21	M 21	87	က	_	•	<b>.</b>	3	o1	x	64
1	der 3	Received.		φ <sub>21</sub>		э·	44. 3.1	31	5		ဗ : 	 	**	3	<b>5</b> . 	
!	Ē	On hand begin- ring of year.	- 72		<del>-</del>	Ξ΄	~ ·	-	4	-	٠: ٠:	<del>-</del>	-		_	
		Counties.	Muskingum Noble.	Ottawa Paulding	Perry	Pickaway	Pike Portage	Preble	Putnam	Richland	Ross	Sandusky	Seneca	Shelby	Stark	Summit

12	18	17	6	46	41			8	88	747	3,654
14	<u></u>	4	<u>د</u>	15	11	8		2	~	222	1,219
6	11	∞	က	<u>م</u>	18	12		00		434	1,452
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			Remaining at end of year.	4333334547-334-46357
		Epileptic.	Discharged.	
	sm.	Epil	Received.	000- 00-00 00 00 00
	pauper		On hand begin- ning of year.	010101000000000000000000000000000000000
11	Causes of pauperism.	!	Remaining at end of year.	24 E 5 5 2 4 E 5 1 2 1 5 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1
	Cau	ıne.	Dischatged.	1 0 242 116 2
!		Insane	Received.	5 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1			On hand begin- ningof year.	24 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
	3 and		Remaining at end of year.	
			Discharged.	
	er be	le of sound mind bory.	Received.	
	Num	5 £	On hand begin- reay to guin	. 51 . 61
			Counties.	Adams A len A-shland A-sht tbula A-sht tbula Auglaize Brown Brown Butler Catroll Clark Clermont Clark Clermont Clary Cla

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Defiance Delaware Eric Eric Fairfield Fayette Franklin Fulton Gallia Greene	Guernscy Hamilton Hancock Hardin	Harrison Henry Highland Hocking Holmes	Jackson Jeferson Lake Lake	Licking Lorain Lorain Lucas Madison Maloning Melina Metiks	Mercer Mianti Montgomery Morgan

TABLE No. VIII-Continued.

)			EXECUT	TA12	שע	CU	MI	P.TA 1	. <b></b>							
			Remaining at end of year.	1 20	•	٠,	0 4	L.	4	ස <u>ද</u>	ထ	s ro	<b>9</b>	25	က က	
		ptic.	Discharged.	61	4	:		63	-	-	87			ကက	<sub>ლ</sub> හ	
	ISH.	Epileptic	Received.	- 6	٦,٠		-		•	01	,		-	2	01 <del>4</del>	
	banber		On hand begin- ning of year.	∞ <b>-</b>	⊣ ಣ	0	 O 69	4	, ro	න <u>උ</u>	29		01	သ တ	ဇာက	
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	Cau	5	ne.	Discharged.	70 -	- 61	-	-	-	-	-	5		-	83	81 81
		Insane	Received.	4-	9	24		63	-	%	9		တ	17	61 61 61 61	
			On hand begin- ning of year.	80	•	7 0	8 4	49	-	- 6	12	 	15	<b>4</b> æ	## ##	
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	ber be	and 1	Received.	15	1									<b>x</b> c <b>x</b> c		
	Num 18	3	On hand begin- ning of year.	<b>T</b>	۲	:						ಣ		٠-	-	
			Counties.	Muskingum	Ottawa	Paulding	Pickaway	Pike	Preble	Putnam Richland	Ross	Sandusky Scioto	Seneca	Shelby Stark	Summit Trumbull	

TABLE No. VIII-Continued.

		Remaining at end of year.	20 1 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1
	Crippled.	Discharged,	2 2 2 1 1 1
	Crip	Received.	18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2
		On hand at be- ginning of year.	4-81-00 004 08
	ase.	Remaining at end of year.	22 4 4 6 8 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	Disabled by disease.	Discharged.	20 6 6 6 7 8 30 8 8 8
ism.	abled 1	Received.	16 6 2 2 3 3 3 4 4 4 5 1 1 1 990
Causes of pauperism.	Die	On hand begin- ning of year.	111 100 100 100 100 100 100 100
ses of	age.	Remaining at end of year.	343 371 6 6 888 888 888 113 113 114 114 115 114 115 115 115 115 115 115
Cau	Disabled by old age.	Discharged.	61 48 20 10 10 10 10 10 10 10 10 10 10 10 10 10
	sabled	Received.	22 22 24 24 25 26 26 26 26 26 26 26 26 26 26 26 26 26
	Diε	On hand begin- ning of year.	30 30 30 30 30 30 30 30 30 30 30 30 30 3
		Remaining at end of year.	10 17 17 18 18 13 13 17 77 77 14 14 14 14 18 18 18 18 18 18 18 18 18 18 18 18 18
	ot.	Discharged.	1 1 1
	Idiot	Received.	1 1 1 7 7 7 7 7
		On hand begin- ning of year.	1 1 2 2 1 1 2 2 1 2 2 1 2 2 2 1 2 2 2 2
		Counties.	Adams. Ashland. Ashland. Ashland. Ashtabula Athens. Auglaize. Belmont Brown. Carroll. C'arroll. C'ammpaign. C'lank. C'linton. C'linton. C'sawford. Coshocton. C'awford.

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# TABLE No. VIII-Continued.

Causes of pauperism.

	Remaining at end of year.	33 01 2112 311464
oled.	Discharged.	23 82 1 1 1 1 1 4 63
Crippled	Received.	31 33 - 133 - 14 15 1
	On hand begin- ning of year.	70 1 10 10 10 10 10 10 10 10 10 10 10 10
ase.	Remaining at end of year.	20 20 20 20 20 20 20 20 20 20 20 20 20 2
Disabled by disease.	Discharged.	9 9 119 19 19 19 19 19 19 19 19 19 19 19
abled 1	Received.	10 13 13 20 20 27 27 29 99 111 177 177 177 177 177 177 177 177
Dis	On hand begin- ning of year.	01
age.	Remaining at end of year.	
Disabled by old age.	Discharged.	10 10 10 10 10 10 10 10 10 10 10 10 10 1
abled	Received.	4 2 2 1 1 1 2 2 2 1 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Dis	On hand begin- ning of year.	
	Remaining at end of year.	22 2121101 s 21 s 1 s 2 4 r 21 r 1 s 2 4
Idiot.	Discharged.	4 to 1 to 1 to 1 to 1 to 1 to 1 to 1 to
Id	Received.	
	On hand begin- ning of year.	8 29543583641911414
	Counties.	Muskingum Noble Noble Noble Paulding Perry Pickaway Pickaway Pickee Portage Preble Preble Richland Richland Ross Ross Sandusky Scioto Seneca Shelby Stammit Trumbull

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Tuscarawas	Van Wert Vinton Warren	Washington	Wood Wyandot Cincinnati City	Total

TABLE No. VIII-Continued.

	EXECUTI	VE DOCUMENTS.
any	Remaining at end of year.	12 13 19 9 18 18 18 18 18 18 18 18 18 18 18 18 18
Not disabled from any cause.	Discharged.	4.11 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
disabled f cause	Received.	22 8 c c c c c c c c c c c c c c c c c c c
Not	On hand begin- ning of year.	19 10 10 11 15 15 15 14 4 4 4 4 4 18 18 18 18 18 18 18 18 18 18 18 18 18
ases dur	Number lying-in ing the year.	21 4 c 2
	Remaining at end of year.	80 010000000000000000000000000000000000
Blind.	Discharged.	1 2
ism. Bli	Received.	2 1 1 1 1 2 2 3 3 3 3 3
Causes of pauperism	On hand begin- ning of year.	NT -4-8-4-4-4866 88
ses of	Remaining at end of year.	
Cau rmed.	Discharged.	2 0
Deformed	Received.	4
	-niged bush no rise of year.	1 2 1 2 2 24000420
	Counties.	Adams. Alland Ashland Ashland Ashtabula Ashtabula Athens Athens Auglaize Belmont Carroll Champaign Clark Clernont Cloumbiana Coshocton Crawford Cunden

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		EXECUT	IVE DOCU	ments.			
any		Remaining at end of year.	30 18 5	26 18 21 16	11-∞∞	9	1 7
d from	se.	Discharged.	49 15 10	₹ 2094	83 83		46
Not disabled from any	cause.	Received.	15 15 10 10 10 10 10 10 10 10 10 10 10 10 10	44224-	28.42		45
Not		On hand begin- ning of year.	8 2 2 2 10	13 20 16 16	.87.78	9	2 6
nı	p s <b>əs</b> sə	Number lying-in o ing the year.	• • •	1881	-	2 -	- 61 61 -
		Remaining at end of year.	400	· - 4 - 0	1-6-	m °	_ ວ છ/ 44 સ્ટ
	Blind.	Discharged.			-		31
ism.	Bli	Received,	-	23 -			
Causes of pauperism.		On hand begin- ning of year.			. 10-	თ <b>—</b> ო	. 61 10 61
ses of		Remaining at end of year.	8-8		4.01	ee -	4 w m
Cau	med.	Discharged.	1				-
	Deformed	Received.	-				
		On hand begin- ning of year.	4-61-		4.31	ee -	- 9 4
		Counties.	Muskingum Noble Ottawa Saulding	Pickaway. Pike Portage Treble	Xichland Ross Sandusky	Scioto Seneca Starior	Stark Sammit Trumbul

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Union	<u>-</u>	:	:	_	31	:		21		4	:	_	က
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TABLE, No. VIII -Continued.

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Counties.	On hand begin- ning of year.	Received.	Discharged.	Remaining at end of year.	On hand begin- ning of year.	Received.	Discharged.	Remaining at end of year.	On hand begin- ning of year.	Received.	Discharged.	Remaining at end of year.	On hand begin- ning of year.	Received.	Discharged.	Remaining at end of year.
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Geauga Greene Guernsey	101 86	18	0.8	101	16 8 55	<b>4</b> %	ဆင္လ	16 6 8	225	5.2	- 2	108	- 10	cc.	4	4
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Meina Meigs. Mercer Miami	28824	4 9 28	16 16 46	ន្ទន្ទន	32222	တ္ထင္သု	္ ကစ္က	30 7 22 22	- 8 2 8 8	17 7 19	8 0g	847 71	• 63	,		3 29 : :
Monroe	92 51 28	101	86 18	107 45 28	8 <del>1</del> 0	67	45	70 8	131	81	11/	141 5 6		-		: : - :

750

#### EXECUTIVE DOCUMENTS.

TABLE NO. VIII-Concluded.

	legal		Remaining at end of year.	1		_	:	: :	=======================================	:	:	:	:			_	-	
	Number not having legal	nent.	Discharged.	90	 64	_	:					:	:			ဘ	:	
!	er not	settlement	Received.	9	61	67	i		G.	•			:			4	_	
1] 1]	Numbe		On hand begin- ning of year.	1	:				×	•		:						
;		ntries.	Remaining at end of year.	17	-	ន 	67	<u>!</u>	- 8				ä	3 &				28
!!		Born in foreign countries.	Discharged.	13	83	19		17	es es	<b>*</b>	9	4	!		21	9	8	4
		n forei	Received.	7	21	ន 	<u>م</u>	∞		· 64	8	4			ន	4	æ —	<u>×</u>
i,		Born i	On hand begin- n ng of year.	83	-	ଛ 	<u>۔</u>	25	<del>ი</del> წ	300	13	2	96	9 9				57
		ates.	Remaining at end of year.	13	9	23	<b>∞</b>	10	∞	<u>.                                    </u>	17		-		=	14	<b>S</b>	16
Nativity.		Born in other states.	Discharged.	<b>00</b>	6 <b>7</b>	2	*	ន	<u>ო</u>	<u> </u>	က		:			=		
Nati		o ni n	Received.	<u> </u>	4	2	<b>∞</b>	26	2	œ	9	ឌ	<u>:</u>			13		10
!		Bo	On hand begin- ning of year.	12	<del>-</del>	- 15	4	-		14	14	22	2			12		13
1			Remaining at end of year.	88		- -	16	98	2 2	88	88	<b>&amp;</b>	36	3	88	22		8
1		Born in Ohio.	Discharged.	57	19	-	<b>7</b> 7	<u>!</u>	91 7				<u>:</u>			ន	<u>72</u>	9
		Born i	Received.	<u> </u>	91	9	74	37	22 5	3 23	જ્ઞ	<u>ୟ</u>	<u>:</u>		=	೩		13
I			On hand begin- ning of year.	6	8	13	9	92	2 4	68	27	. 76	96	8	27	27	<b>∓</b>	ୟ
			Counties.	Muskingum	Noble	Ottawa	Paulding	Ferry Pickaway	Pike	Preble	Putnam	Richland	Ross Sandustra	Scioto Scioto	Seneca.	Shelby	Stark	Trumball

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1	61	.23	88
<u></u>			84
8 8		2	29
œ	61	402 677 2	71
9 9 9	œ	11 19 677	2,446
8 16 15 99 8 3 2 9 9 17 17 2 2	12	402	1,066
16 1 3	က	2 442	1,192
		9 22 637	2,320
41 35 36 2 10 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	=		1,306
13 63		11 6 9 8	281
400-4	-		675
8 2 7 2 8	10	13 13 91	1,212
64 32 15 23 59		45 28 156	2,987
57     87     80       42     22     32       16     22     23       28     7     13       75     48     64		5 17 22	1,205
22 22 7 7		50 33 12 147 31	1,233
	<b>8</b>	50 88 144	2,959
Tuscarawas. Union. Van Wert. Vinton. Warren. Warren.	Wayne	Wood Wyandot Cincinnati City	Total

TABLE No. IX.—CHILDREN'S HOMES-RECEIPTS.

	дицеот	IVI DOCUMENTA
	Total receipts.	\$5,820 57 \$464 86 5,382 04 6,665 82 6,167 73 3,845 53 8,142 87 4,073 31 2,049 19 7,204 82 7,204 82 15,987 41 3,294 56 6,054 24 1,783 45
	.fstoT	\$336 \$325 1,637 36 00 166 38 5 00 116 19 633 00 177 00 177 00 177 00 177 00 177 00 178 00 179 85 108 37 108 37 109 37 1,931 10
18es.	From all other sources.	\$136 16 1,050 78 67 78 67 78 19 56 100 00 26 50 102 00 102 84 145 64 145 64 145 64 145 64 18 86 32 25
For current expenses.	From boarding inmates.	\$84 00 586 53 36 00 34 00 790 56 119 00
For	From sale of farm products.	\$24 60 10 00 208 00 210 08
	From sale of stock.	\$12 00 63 50 7 00 7 00 89 50 15 86 83 100 100 00 11 10 28 00 11 10 28 00 16 1 10 28 00
	From other counties.	\$248 16 30 40 59 09 225 00 297 00 1,708 75
	Егот соппеу.	\$5,424 25 6,112 30 8,124 25 6,629 82 6,001 35 8,840 53 8,20 47 12 8,20 47 1,872 14 1,872 14 1,21 15,616 77 3,181 00 5,684 10 5,483 45
_	Counties.	Adams Allen Ashtabula Ashtabula Athens Belmont Brown Butler Clark Clinton Darke Defance Defance Fairfield Frayette Franklin Gallia Guernsey Harrison Hocking

2,060 00 3,891 51		2,364 08 4,043 47						3,583 81							3,700 50	5,844 39	6,073 47	13,008 16	\$242,556 55
	2,405 00		345 93	2,102 51	86 15			53 91		89 35	260 35	389 75	2,039 88				344 91		\$18,376 72
18 75		134 17	119 60					17 90	: : : : : : : : : : : : : : : : : : : :	79 85	•		14 95.				109 64		\$2,398 72
		277 00			76 00						260	228 48	8				33 70		\$3,653 61
	463 22	141 25	166 60					20 01				33 76	11 12				48 97		\$1,360 17
		20 20 20	59 73		. 10 15			11 88		9 20			17 50		54 32		152 60		<b>\$1,164</b> 79
160 50	2,405 00	389 90	10 00 0	16 201,2				5 00			•••••••••••••••••••••••••••••••••••••••	127 51	1,936 31					44 00	<b>\$9,799 43</b>
1,866 79 3,891 51								3,529 90							3,646 18	5,629 07	5,728 56	12,593 16	\$223,344 77
Ноітев	Licking C Logan		Kiani Kiani	Montgomery		Perry	Pike		Richland	Scioto	Summit	Trumbull	Tuscarawas	Union	Warren	Wayne	Washington	**Fairmount	Total

\* Noble county children maintained in Monroe county children's home.

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\* Stark and Columbiana Countles counties.

TABLE NO. IX.—CHILDREN'S HOMES—RECEIPTS—Concluded.

	Value of farm products.		365 256 256 256 256 256 256 256 256 256 2	M 0/0	1.000 00		50 00		2 2 2 2 3 3 3	3 S S S S S S S S S S S S S S S S S S S	90 906	200 00	500 00	1.200 00	2,000 00	90 009	200 200 200 200 200 200 200 200 200 200	3
	Total cash received,				7.047 82				7,443 85	10 7216	9,105 22	2,049 14					6,184 <b>44</b>	
tions.	.latoT	,			382 00				785 49		241 75				1,849 39			
Special appropriations.	For ordinary repairs.				150 00				300 00		175 00				1,849 39			
Speci	For furniture.						<b>\$</b> 10 00		150 00		16 75		68 69	8				
	Por other improve- ments.				£232 00		00 08		335 49		150 00					242 12	26 42	<u> </u>
	For new buildings.																	
	Counties.		A dams	Allen Ashtahula	Athens	Belmont	Brown	Butler	Champaign	Clinton	Darke	Defiance	Delaware Fairfield	Favette	Franklin	Gallia	Guernsey	Hocking

1.983	500 00 1,490 30	1,924 33			200 00		1,000 00	200	1,100 00	\$22,806
3,989 44							4,000 20 7,378 92		6,566 38 6,527 74 13,008 16	\$256,356 19
•	1,433 54 807 17	301 68	526 78 188 26	127 34			249 00 500 35		721 99 454 27	\$17,188 01
544 36	425 75	286 63	526 78 188 26	26 74			213 00 164 51		206 55 212 77	\$10,339 22
50 58	23 79			28 00			20 50		13 00 31 50	\$657 61
57 35	1,433 54 357 63	15 05		42 60		163 89	36 00 315 34		192 19 210 00	\$5,080 93
									310 25	-310 25
Holmes. Lawrence	Logan Lucas	Meigs Meigs Monroe	Montgomery Morgan *Noble	Perry. Pike	Preble Richland	Scioto Summit	Trumbull. Tuscarawas.	Union Vinton Warren	Wayne Washington	Total

Noble county children maintained in Monroe county children's home.

\*\* Stark and Columbiana Counties combnied.

TABLE NO. X-CHILDREN'S HOMES-EXPENDITURES.

1	EXECUT	IVE DOCUMENTS.	
	Bedding.	\$9 68 40 00 18 24 55 00 55 00 38 16 181 20	
	Clothing	\$67.87 136.87 136.89 14.16 16.88 16.	
	Drugs and medicines.	832 106 108 108 108 108 108 108 108 108	
	Groceries, including coffee, sugar, spices, etc.	2467 42 304 41 183 89 593 86 507 68 376 37 1,129 07 645 16 306 80 1,180 38 236 21 236 21 237 31 1,157 28 377 415 3	
	Provisions, including flour, meats, butter, etc.	\$1,180 87 1,250 51 1,250 51 1,281 40 581 40 882 83 775 45 648 35 648 35 1,542 83 1,542 83 1,76 41 1,70 41 2,345 93 2,345	
	Counties.	Ada.ns Altabula Altabula Ashtabula Athens Athens Belmont Butler Clark Clark Clinton Darke Defiance Fairfield Fayette Franklin Gullia Guernison Hocking	Holmes

Licking Logan Logan Lucas Lucas Meigs Miami Monroe Monroe	1,296 81	1,080 12	172 48	111 41	
γ					
					35 00
		1,121 33	59 83	26 28	57 28
	-	242 64			
	- :				
Perry					
Pike					
Preble	507 47	284 62	ور م	17 09	17 10
Richland	- 1				
Scioto					
Trumball	478 51				
Tuscarawas					90 10
		908 16	53 79	320 00	20 00
Vinton					
			3 33		
			37 54	105 20	
			37 45	23 84	30 00
			126 25	98 93	
	\$33,709 01	\$29,662 60	\$1,902 18	\$3,357 08	<b>\$</b> 751 61
wayne	1,424 76 1,816 80 \$33,709 01	150 00 1,189 13 \$29,662 60	37 126 81,902		25 28 28 25 98 18 \$3,357

\*Noble county children maintained in Monroe County Children's Home.

a includes telephone. b includes clothing, bedding, boots, shoes, etc.

g repairs.

inprovements, building and grounds.

k includes telephone, water rent and postoffice box rent.
Includes \$210 paid Children's Home Society for placing children.
\*\*Stark and Columbiana counties.

TABLE X-Continued.

Папсотт	VII 2000	•	
Water, plumbing, etc	\$74 89 105 48 215 00	10 00 45 00 114 55 40 00	63 37 732 17 7 26
Fuel and light.	\$434 51 1,00°1 02 185 81 400 58 451 08 385 75	336 32 142 41 65 36 998 84 45 00	4 34 309 43 1,732 17 154 98 478 77 182 73 75 00
Laundry supplies.	\$62 43 127 49 115 00 40 25 71 06	23 15 581 43 24 38 61 91	118 20 61 78 223 04 223 64
Boots, shoes, etc.			204 70 138 83 276 25 71 40 100 69 73 18 37 45
Dry goods.	\$237 60 250 58 6276 76 338 81 243 47 185 16		343 60 171 50 723 49 200 46 202 89 197 70 140 66 42 63
Counties,	Adams. Allen Ashtabula Athens Belmont Brown Bruter	Champaign Clark Clinton Darke Defence	Fortaware Fortaware Fayette Fayette Franklin Gallia Gulia Harrisou Hocking Holmes

47 90 37 <b>4</b> 27 50 20	•			164 41 185 38		28 62 99 35 2 17	\$2,806 02
728 64 728 64		• .	1	378 98 370 73 135 35		266 18 373 79 330 09 1,013 01	\$15,778 50
		143 01 7140 37 17 50 10 00	: :	25 95 46 65	61 53 65 20	28 12 24 78 52 12 170 55	<b>\$</b> 2,744 87
127 35 403 50 129 40		:		119 41 255 15 85 45		162 60 202 80 144 40 526 56	\$6,733 91
		621 48 \$12 35 341 71		161 35 327 67 184 71		237 66 190 60 168 14 546 50	\$9,934 53
Lawrence Licking		Miami Montoe Montgomery	*Noble Perry Pike Preble	Scioto Summit Trumbul	Tuscarawas. Union	Warren Washington Wayne	Total



TABLE X-Continued.

U	BARCUI	IVAD	CCUMA	MIC				
	L,umber.	\$36 77	184 36 78 26 4 50	114 88 45 26 84 00	10 00	60 40 1 00	70 59	30 17
	. Ригпісиге.	က္ကေ	100 71 135 13 10 00		10 00	66 62	65 05	54 85 14 00
	Іпвитапсе.		\$27 37					
	Books and stationery.	\$45 67 22 35	72 89 26 83 21 22	5 00	11 90			25 38 38 38 38 38 38 38 38 38 38 38 38 38
	Postage and telegraphing.	\$10 75 a67 30		10 85 21 53 17 00		42 00 15 24		4 00 9 61
	. Counties.	Adams Adams Adams Adams	Athens Athens Belmont Brown Dutles	Champaign Clark Clinton	Defance. Defaware	Fairfield Fayette	Franklin Gallia	Guernsey Harrison Hocking Holmes

119 60 75 00	48 08 29 65	23 20	95 15 12 20	31 50 <b>b</b> 19 13 75 36 79 17 65	\$1,168 45
100 64 180 26 45 60	18 23	120 00 100 83	47 00		\$1,480 93
					\$27 37
13 98 85 74 11 12 111 07 8 50 55 04	43 57 71 54 54 32	16 80 25 00 29 68	49 51 5 05 60 43 83 06 27 00	32 18 39 12 37 40 111 90	\$1,566 79
4 54 18 00 15 19 a266 00 2 00	50 75	5 40 10 90 1 90	\$99 00 6 00 63 75 27 00 4 50	29 55 3 50 10 25 a155 10	\$1,134 16
Lawrence Licking Logan Lucas Meigs.	Montgomery Mortgan Mortgan	Perry Prike Preble Preble	Scioto. Summit Trumbull Tuscarawas.	Vinton Warren Washington Wayne	Total

TABLE X-Continued.

minet i			
Expense of farm implements, feed, etc.	\$174 33 407 25 611 22 716 65	373 18 1,064 97 825 67 1,130 47	536 67 622 64 1,154 61 238 35 508 35 276 42 338 43
Miscellaneous.	\$93 75 161 35 774 03 260 90 41 20	I I I	253 08 540 10 105 32 220 40 638 67 417 28 542 37 82 48
Transportation.	\$60 00 67 40 23 30 183 69	72 28 64 45	6 65 20 19 25 72
Coffins and digging graves.	90 21\$	8 98 9 99	21 25 25 00 25 00 33 50 48 50
Counties.	Adams. Allen Ashtabula Athens Belmont.	Butler Champaign Clark Clinton Darke	Delaware Fairfield Fayette Franklin Gallia Guernscy Harrison Hocking

Licking	00	000	
	_	3	
		147	
		423	
Meigs	9		
Miami		398	694 86
		00 324 43	
	15 00		
	45 00	07 79 70 70	523 93
*Noble			
Perty	2 00 3	00	112 00
Pike		90	210 00
			430 48
Richland			
-		95 7421 18	
		120	
		141	
		452	708 57
Union	02		204 03
_			
_	10 00	96 35	192 00
	98	90 1.136 67	892 78
			400 00
	6 50 255	06 248 37	1,237 82
1_	1	누	
Total.	\$281 00 <b>\$1</b> .269 80	80 816.992 58	\$17,936 67

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	Теасрет.	\$165 00 144 00	275 00 180 00 160 00	160 00 237 25	120 00	160 00 160 00 720 00	166 10 249 96 180 00	
ies.	. Рһувісіяп.	\$235 50	19 25 63 70 64 50	168 75 150 00 10 00			66 95 75 90 44 00	
Salaries	.Майтоп.	\$200 00	200 00 325 00 240 00	180 00	180 00	270 00 270 00 280 00 280 00	300 00	207 02
	Superintendent,	\$420 00 600 00	800 00 325 00 500 00	600 00 625 <b>00</b> 7660 <b>00</b>	240 00	650 04 270 00 900 00	399 96 420 00 6524 94	207 02
	Counties.	Adams Allen	Ashtabula Athens Belmont Belmont Belmont	Champaign Clark Clark Clinton	Delaware	Farrheid Fayette Franklin	Gallia Guernsey Harrison Hocking	Holmes

	306 60	112 00	J717 45	886	8 017		153 00		180 00	235 00	• • • • • • • • • • • • • • • • • • • •	330 00			200 00		332 50	195 00	150 00	424 00	\$7,050 86
	89 26			149 00	8 7 7	250 00	75 00	18.00		22 50		100 00	90 92 92	138 00		00 00 00 00	2 00	75 00	321 78	130 00	£3,086 64
	300 008	200 00	480 00	00 076	20 0#7	900 008	240 00		180 00	240 00		00 009	•	200 00	330 00	432 00	250 00	300 00			\$7,976 02
				200 00				i646 50	319 92	360 00				200 00			250 00	200 009		00 005,12	\$19,493 94
Sawrence	Licking	Logan	Lucas	Mēigs Miemi	Monroe	Montgomery	Morgan *Noble	Perrv	Pike	Preble	Richland	Scioto	Summit	Trumbull	Tuscarawas	Union	Warren	Washington	Wayne	**Fairmount	Total

c Includes services of matron.
d Matron and housekeeper.
e Three teachers.

f Includes visiting agent.

i Pay of officers and employees.
j Includes all paid help.
Noble County children maintained in Monroe County Children's Home.
Stark and Columbiana Counties.

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Тотя ситтепт ежрепяев.	\$6,424 25 6,112 30 3,744 73 6,629 82 6,001 35 3,840 53	6,509 77 7,336 45 3,957 12 8,220 47 1,872 14	7,069 82 4,251 54 15,616 77 3,181 00 5,694 10 4,123 16 1,788 45 1,866 79
Вајапсе оп напа September 1,	83,434 85 69 85		430 85 32 88
Expenses of trustees.	\$33 95 17 50 27 50 1 55	09 9	10 28 20 28 12 25 12 65 3 00
Wages paid employees, not farm labor,	\$1,286 71 1,116 09 1,149 08 1,279 35 1,419 14 497 50	1,280 60 1,412 00 546 00 1,368 44 16 00	1,843 90 889 38 8,913 03 621 58 1,541 79 888 75 117 00 578 94
Counties.	Adams Allen Ashtabula Athens Belmont Belrown Buritar	Champaign. Clark Clinton Darke Definice	Polaware Franklin Gallia Guernsey Horrison Holmes

3,891 51 9,565 63 4,581 19 11,071 76 4,013 47 8,671 87 6,610 02 4,725 52	1,642 03 2,247 82 3,458 19 6,198 30 5,070 72 5,777 30 8,361 45 6,878 57 2,721 17	3,455 93 5,711 22 5,629 07 12,593 16	<b>\$223,755</b> 03
2,530 02	83 18 2,964 24	17 34	\$9,563 21
2,530 02	20 80	17 34	\$176 48
676 25 1,905 82 682 00 3,243 53 792 00 1,788 53 1,552 04 1,097 04	1,546 50 1,626 71 1,626 71 936 50 1,493 99	761 83 861 25 1,550 70 3,316 86	\$46,401 83
Licking Logan Lucking Lucking Meiss Malami Monroe Montgomery	Perry Pike Preble Preble Richland Scioto Summit Trumbull Tuscarawas	Warren Washington Wayne Fairmount	Total

TABLE No. X-Concluded.

Per capita cost on total current expenses and daily average.	\$76 39 122 85 170 00 81 53 115 36 77 33	120 00 78 38 113 86	104 16 135 54 64 00 142 04 57 71
Per capita cost on net cur- rent expenses and daily average.		108 96 68 40 104 05	97 67 125 04 118 57 58 00 132 56 108 50 124 45
Total expenditures.	\$5,844 09 6,528 43 5,446 57 7,011 82 6,906 26 3,998 68	7,195 26 7,336 45 3,957 12 8,462 22 1,872 14	7,395 97 4,500 59 17,466 16 3,538 11 6,075 07 4,123 16 1,783 45 1,866 75
Paid for building improve- menta, etc.		C85 49 241 75	326 15 349 05 1,849 39 357 11 380 97
Counties.	Adams. Allen Ashtabula Athens.* Belmont. Brown	Champaign Clark Clinton Darke	Delaware Paritiel Fayette Franklin Gallia Guernsey Harrison Hocking

		\$238,987 09	\$15,324 52	Total
		12,593 16		Fairmount
133 35 84 00	123 85 70 00	6,133 99 5.629 07		Washington
		4 059 27	603 34	Warren
				Vinton
97 94				Union
103 92				Tuscarawas
				Trumbull
				Summit
				Scioto
			603 55	Richland
				Preble
20 03	20 00	2,247 82		Pike
93 00	86 42	1,769 37	127 34	
				Noble
120 69				Morgan
***************************************	82 63		526 78	Montgomery
7.5 70				Monroe
			301 68	Miami
	98 75	4.043 47		Meigs
12 011	02 60		1,433 54	Logan
	109 86			icking
2	88 44			Lawrence

TABLE No. XI.—CHILDREN'S HOMES—STATISTICS.

•		20.20000						
		No. placed in homes since toganization.	190	375 342 199	26 428 240	42	966.1	888
		No. of these that had parents separated.	25.02	126 135 67	82 173 48	3	81	131
		No. of these that had both pa- rents living.	26.8	130 113 80	187 282 28	32	123	183 176
tics.		No. of these that had mothers living	98	110 161 154	43 296 110	48	183	160 116
General statistics.	Inmates.	No. of these that had fathers living.	25 88	114 148 185	42 157 114	95	235	115 100
Gen		Full orphans.	34	18 104 29	26 169 61	21	14	32 32 32
		Total admitted since organiza-tion.	263 191	441 661 314	148 880 342	240	276 283 1354	511 433 158
		Admitted since organization. Girls,	140 75	1x8 266 141	70 339 146	93	107	042,25
		Admitted since organization. Boys.	123 116	253 395 173	78 541 196	147	9 169 162 807	271 224
		Counties.	Adams Allen Acktahula	Athens Belmont Brown Brown	Champaign. Clark Clinton	Defiance	Detaware Fairfield Fayelte Franklin	Gallia Guernsey Harrison

57 115
362 305 667 50 221 148 369
100 300
183
177 363
00g
69
9.2
127
114 91 205 27
88 165
109 230
154 120 274 9
12
291 734
200
200
963 999 485
158
71.035 715 1.750 209
000
9,305 7,088 16,393 1,120

TABLE No. XI-Continued.

			EXECUTI	VE DOCUMENTS.
			Probable value at present.	8,000 000 000 000 000 000 000 000 000 00
	tics.	و	Original cost.	\$1,250 00 7,000 00 4,000 00 6,600 00 1,500 00 2,650 00 6,350 00 7,000 00 7,000 00 15,000 00 4,500 00
	General statistics	Premises	Acres under cultivation.	10 25 25 25 25 25 25 25 25 25 25 25 25 25
	Ģ		Number of acres added since,	20 20 25 114
			Original number to seres.	25 121 125 125 20 131 22 22 23 20 20 20 20 20 20 20 20 20 20
			Date of purchase.	1883 1891 1878 1878 1878 1886 1884 1884 1884 1884 1884 1884 188
		SBW	When institution organized.	1885 1880 1880 1880 1880 1881 1884 1884 1888 1888
			Counties.	Adems Adens Ashrabula Ashrabula Ashrabula Athens Belmont Burow Clampaign Clark Clark Clark Clark Clark Clark Pairfield Fayarfield Franklin Gallia Gallia

HockingHolmes	1888	1888	75		09	00 000'9	5,000 00
	1874	1878	- ;	81	- ;	2,700 00	
	1880		711		105	***************************************	
	1885	188ri	89		89		
	1890	1889	47		40	•••••••••••••••••••••••••••••••••••••••	
	1885	1882	20	4	က	2,385 00	
	1877	1877	160	,	8		
	1888	1888	62	:	20	2,500 00	00 000'9
	1867	1867	79		67	5,250 00	
	1881	1880	62	e 8		4,500 00	
	1885	e 1895	<i>9</i>		4	3,600 00	3,600 00
	1887		<b>∞</b>		z.	00 0006	00 000'6
	1884	1883	12	12	12	19,000 00	26,000 00
	1883		19	8	18	10,480 00	
	1874		5		67		-
	1885	1889	7			20,000 00	16,000 00
	1889	1888	70		-	9,500 00	10,000 00
	1881	1881	40		52	25,000 00	100,000 00
	1884	1886	95		75	6,175 00	
:	1974	1874	5.5		QF	00 691.9	
	F / O I	1001	3 5		2 4	10,000	00000
	1800	900	3		æ 1	18,000 00	8,000 00
	1881	1841	85		7.7	12,000 00	16,000 00
	1876	1875	154		8	13,900 00	12,000 00
			2,0151	2308	1,581 ½	261,459 03	\$368,900 00
-				-	_		

a Discharged at 16 years of age.

A Received no report

C Placed in families by Children's Home Society of Ohio.

C Findren of Noble county maintained in Monroe County Children's Home.

A Children of Noble county maintained in Monroe County Children's Home.

A Children of a new location.

A Columbiana and Stark counties.

K Includes 8 discharged at age of 16 years.

TABLE No. XI-Continued.

ı				88	888	88888	:888888
			Total probable value of entire premises.	\$62,000 00 55,000 00	36,000 35,000 16,000	25,000 35,000 6,000 9,000 9,000	25,000 26,000 20,500 20,500 25,000 26,000
			Present probable	\$60,000 00	12,900 00 50,000 00 15,000 00	21,000 00 25,000 00 4,000 00 26,900 00 8,000 00	28,000 00 70,000 00 16,000 00 22,500 00 25,000 00
	General statistics.	Buildings.	Additions and improvements since purchase.	\$13,200 00 4,000 00 5,000 00		9,300 00 10,000 00 2,000 00 1,200 00	5,000 00 5,000 00 10,000 00 2,000 00
	Gen		Original cost.	\$47,719 89 43,000 00	2,500 00 35,000 00 13,000 00	11,368 39 20,000 00 5,000 00 25,780 00	30,000 00 23,000 00 60,000 00 14,000 00 17,000 00 27,500 00
			Accommodate.	7.2 80 50	120	65 100 4	75 160 150 150 60 60 75
			<b>W</b> реп етесtеd.	1884 1891	1881 1879 1886	1892 1877 1875 1888	1885 1886 1878 1885 1887 1887
			Counties.	Adams Allen Astrabula	Athens Belmont Brown Butler	Champaign Clark Clintou Darke. Defance	Fairfield Fayette. Franklin Gallia. Guernsey Harrison

Holmes	0000					
	2000	30	1,000 00		3,000 00	
Lawrence	1878	99				
icking	1886	125	20,000 00		85,000 00	
Logan	1886	100	27,000 00		35,000 00	
Jucas	1889	120			80,000 00	
Meigs	1883	09			17,000 00	
Miami	1878	001			47,300 00	
Mouroe	1888	.67			15,000 00	
Montgomery	1867	195 195	25,000 00	965 00	51,000 00	26,000 00
Morgan	1881	65			00 000'6	
Noble						
Perry		35 .			2,500 00	
Pike	1881	25	00 0006	300 00	9.300 00	930 00
Preble	1885	96	19,000 00		28,000 00	
Richland	1881	200	30,400,00		`	
Scioto		69				
Summit	1889	E	2,000 00	00 009'9	10,000 00	25 000 00
	6881	20		12,000 00		
	1878	150	25,000 00	75,000 00	100,000 00	
['nion[']	1887	45		3,800 00	3,800 00	
Vinton						
Warren	1874	. 09	23,000 00	00 000'6	32,000 00	40,000 00
Washington		-			00 000'2	15,000 00
Wavne	1881	. 601			24,000 00	40,000 00
Fairmount	1876	160	51,000 00	21,200 00	20,000 00	87,000 00
Total.		3,212	\$732.041 28	\$284,447 40	\$1,053,200 00	\$1,302,575 00

TABLE No. XI-Concluded.

	EARCOI		_	•	-				•	•										
	Number of employees.	6	2	က	L~	2	4		6	2	87	6	4		7	တ	ន	9	-	ĸ
	Officers and teachers.	က	9	67	4	က	ಞ	-	37	က	က	4	ಞ		4	က	9	œ	4	— ლ
	Daily average.	92	82	32	35	59	53	:	56	4.0	17	20	35		71	\$	124	55	42	- 8 <del>4</del> -
	Total.	8	8	:	182	<b>8</b> 8	8		35	6	48	6	64		8	26	107	83	8	- 9:1
	Whole number for the year—girls.	38	8		62	55	45		47	34	93	40	24		35	22	62	33	33	33
Ŀ	Whole number for the year—boys.		59		120	8	4		45	<del>6</del> 3	ន	22	4		52	37	45	22	4	<del>-</del>
he yea	Present at the close of the year.		200	31	9	29	33	:	54	46	14	8	9		69	53	134	53	æ 	8 -
cs for t	Died.	64	-				_		_	67					2	<i>a</i> 1	21		67	- 2
Statistics for the year.	Out on trial.		-	. a1	∞		9		91				2		87	:				<b>9</b> 
•	Кипаway.				27			-	_		:	:					. 4	_		- !
	Transferred to other institutions.		ଚା	9	_	_	_	:	က	1-	21	_			:	77	4		2	=
	Placed in families.		15						<b></b>	87	န္တ	-1	2	_				2		_
	Returned to parents or guardians.		9I —	=	2	5	22	:	91					-				<b>∞</b>		_
	Received during the year.		<del>-</del>					_ :	38					_	_	_		<u>%</u>		_
	Present at beginning or fiscal year.		44	77		5.	<del>\$</del>		56	ය	14	_	22		75	37	137	49	£	48
	Counties.	Adams.	Allen	Ashtabula	Athens	Belmont	Brown	Builer	Champaign	C.ark	Clinton	Darke	Defiance	Delaware	Fairfield	Fayette	Franklin	Gallia	Guernsey	Harrison

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15 11 9	36 10 21 69	4 E 2 8 11 8 6 6 6 6	17 15 9 39 601
- 52 54 51 54	 444267122	16 13 15 15 15 15 15 15 15 15 15 15 15 15 15	46 33 32 118 1,521
- 85.25.34	20 8 9 1 9 8 9 1 9 8 9 1 9 8 9 1 9 9 1 9 9 9 1 9 9 9 9	22 22 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	29 49 66 140 2,036
Hocking	Luckan Mergs. Miami Monroe. Montgomery. Morgan	Perry Pike Pike Preble Sribland Scioto Summit Trumbull Truscarawas (Tion	Warren Washington Wayne Wayne Fairmount Total

TABLE XII-OUTDOOR RELIEF.

	Total expenditures.	\$2,096 15 4,630 54 6,430 14 6,904 43 7,096 9 3,199 76 7,930 31 7,930 31 7,930 31 7,930 31 11,082 93 6,078 92 4,411 00 1,272 34 3,556 25 9,485 85	
ended for	Supplies—Food, fuel and clothing.	#967 90 1,950 43 1,950 43 6,404 62 5,896 79 6,139 34 1,553 29 2,067 38 3,711 00 2,441 61 7,773 95	
Amount expended for	Per diem and expenses. of township trustees.	\$200 00 57 00 400 00 5 50	*226 43 4526 91
	. Рһуѕісіян.	2,1,128 25 2,680 11 1,423 52 1,423 52 1,000 00 1,000 00 1,731 00 2,740 19 611 00 300 00 300 00 1,414 64 1,711 90	1,622 25 1,045 23 2,135 58 1 364 34
	Counties,	Adams. Allen. Ashland. Ashland. Ashlabula. Athens. Athens. Belmont. Brown: Carro I. Champaign. Clark. Clermont. Clinton. Columbiana.	Coshocton Crawford Cuyahoga Darke

† Delaware Brie	•	**93.55		6.421 31
Fairfield			00 098'9	9,566 31
Fayette				8,740 41
Franklin		**2,634 95		87,876 20
Fulton	722 15		1,081 68	1,803 83
Gallia				300 000
Geauga			1,330 65	2,110 98
Greene		*4,333 26	1,530 27	5,863 53
Guernsey			2,149 28	2,716 97
Hamilton			99 75	171 30
Hancock			2,549 72	3,722 72
Hardin	1,648 00	*341 35	63,433 82	5,423 17
Harrison				200 00
Heury				3,810 39
Highland				3,240 00
Hocking				8,785 71
Holmes.				1,830 68
Huron				9,677 74
lackson		54 45	3,594 66	5,257 46
Jefferson				6,753 30
Knox		2,565 25		6,772 99
I,ake				2,036 00
L'awrence	2,042 79		2,330 92	4,373 71
1.jcking				
Logan	913 64		1,630 46	
Lorain.				
Lucas				
Madison				
Mahoning				
Marion	2,638 13			
Medina	00 628	3 5		
Metgs	06 /22,1			
Merce r	00 92.			
Mann	403 44			
Monroe	67 000.1			
Montgomery	1,445 36			
Morgan	2,020 50			
Morrow	1 144 50		1,009 ±2	7,132 20
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TABLE XII.-OUTDOOR RELIEF-Continued

	Total expenditures.	\$2,482 21 5,585 29 6,466 29 7,358 50 1,583 72 3,583 18 5,412 88 6,684 72 5,684 72 5,684 72 5,684 73 8,684 90 973 02 973 02 9,742 34 7,742 34 7,742 34
pended for	Supplies—Food, fuel and clothing.	\$1,117 4,150 4,150 4,156 4,156 5,739 5,739 2,337 2,337 2,337 2,337 2,337 3,593 3,593 3,76 7,110 20 1,493 8,47 6,644 80 1,6712 1,
Amount expended for	Per diem and expenses. of township trustees.	\$1,266 60
,	. Рһуѕісіяп.	\$1,364 87 2,785 80 2,785 87 1,127 90 1,633 90 1,819 25 1,896 94 1,096 69 1,200 90 1,200 90 1,899 90 1,899 90 1,899 90 1,856 80 1,856 80 1,856 80 1,856 80 1,856 80 1,856 80
	Counties.	Noble Ottawa Ottawa Perry Perry Pickaway Pickaway Pickaway Preble Portage Preble Richland Ross Ross Ross Ross Ross Ross Ross Ros

2,309 66	9,415 42	4,583 35	_	2,848 72	10,224 21	\$516,634 59
703 80 672 41	6,626 37	3,055 57 1,650 52		2,249 46	4,300 21	£357,695 03
		*332 52				\$13,235 32
727 35 1,637 25	•	1,527 78 2,483 90	1,995 65	599 25	£5,924 00	\$130,140 95
Vinton Warren	Washington	Wayne. Williams	Wood	ldot	Cincinnati City	Total

TABLE XII.-OUTDOOR RELIEF-Continued.

	Total number relieved.	820 250	935 460 125	153 1,958 413 470	45	2,250	196 12,602	481
Persons relieved.	Single persons.	80 125	150 100 20	344 8 8 248	10	150	30 61	14
Persons	Сріјдтеп.	540 80	d 784 300 63	94 1,029 280 114	25	1,650	96 8,353	227
	Ратепіз.	200 45	60 <b>42</b>	59 585 125 108	10	450	70 4.188	240
ved.	Mumber of families relie	280 35	180 100 12	344 70 70 61	<b>88</b>	250 210	2,300	82
	Counties.	Adams Allen	Ashiabula. Ashiabus. Auglaize Relinont	Brown. Butler. Carroll. Clampaign.	Clemont	Co unitan Co unitaniana Coshorton	Crawford Cuyahoga Darke	Defiance

	160 205 138	485 512	30	725 743
	946 44 86	d 3,311 205	81	3,311
		39	89	89 173
	125 175 10 10 85 85 150 200	400 14 250 400 436	150 40 50	28 37 35 36 36 36 36 36 36 36 36 36 36 36 36 36
	42 38 350 650 24 40	42 950 68	7 51 12	110 87 1,651 120
	110 204 133 150 58 146	342 180 438	45 15 59	591 345 643
	230 334 918 1,638	663 2,542	126 392	1,123
		218 36 181 348 150	8 8 8 E	358 358 69 315 545 150
S.	3,891	5,000	19	8,952
Muskingum	100 70	300	35	•

TABLE XII.-OUTDOOR RELIEF-Concluded.

	Total number relieved.	98 473	1,570	1,058	1,800 698 391	1,050 187 1,482	429
elieved.	Single persons.	2	150	1,000	300 28 28	75 60 984	32 32
Persons relieved	Children.	26	1,200	60 28 28 85	1,100 95 272	550 47 360	261
	Parents.	0 <del>4</del> 4	220	<del>3</del> 88	9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	425 38 138	131
ved.	Mumber of families relie	123	300	82.24	300 50 71	225 23 114	73
		Noble Observations	Perry Pickaway Dit.	Portage Protage Prefice	Ross Sandusky	Sentora Shelby: Stark	Trumbull Tuscarawas Union Van Wert.

Vinton	೫	- 88	8	15	110
Warren	10	15	21	43	4
Washington	180	240	650	36	086
Wayne	50	8	. 75	15	120
Williams	99		d 294	83	323
wood	85		d 385	62	447
Wyandot	42	45	105	14	164
Cincinnati City	1,533		2,724		2,724
Total	14,046	17,344	40,553	6,304	65,652

Coffins and burial expenses.

a Coffins and burial expenses, \$217.15. b Includes \$472.55, board and care of children. Includes \$1,175.55 for burial expenses.

d Includes parents.
rIncludes per diem and expenses of township trustees.
\* Transportation furnished.

+ Made no report.

Salaries of overseers and clerks.

TABLE NO. XIII—JAIL STATISTICS—NUMBER AND CLASSES OF PRISONERS—COST OF MAINTENANCE, ETC. FOR THE YEAR ENDING JUNE 30, 1896.

		Number un	der arrest	during yea	Number under arrest during year ending June 30, 1896.	ıe 30, 1896.	
		Males.			Females.		
Counties.							
	Married.	Single.	Total.	Married.	Single.	Total.	Total.
Arlams	10	38	45		63	63	47
Allen	7	88	107	2	2	12	119
Ashland	=:	72.	88 9	(	_	81 (	4
Ashtabula	8 8	103	22 8	24 4	:	21 <	<u>¥</u> 2
Auglaize	<b>?</b> :	42	88	r 4	2	# ¢	41 41
Belmont	83	118	157	63	ιΩ	-	164
Brown	9	37	47	ro.	9	15	62
Butler	ୟ '	3 <u>-</u>	38 f	က	81	-	8
Chambaign	- 93		3 23	2	4	11	3 2
Clark	190	222	412	8	15	\$	457
Clermont	9	8	38		:	:	<del>6</del> %
Clinton	61 6	28	88.2	<b>00</b>	17	ন্ত্ৰ -	1 <u>12</u>
Columbiana	77	88	8 8		<b>-</b>		2/
Crawford	- 61	3 8	38		 - ⇔	1 00	S
Cuyahoga	1.6	241	397	4	10	14	411
Darke	16	67	<b>%</b> :	24	-	က	98
Defiance	13	ਜ ਜ	44	~	-	က	47

Delaware Brie	13	385	48		63.4	es es	51
Fairfield	3 23	26	8	*	. 20	ာက	74
Fayette	16	25	89	~	r-	6	77
Franklin	146	26 26 26	536	10	45	55	169
Fulton	ଛ	24	44	8		4	48
Gallia	88	43	92	9	9	12	<b>8</b>
Geauga	87	14	16				91
Greene	8	83	83	:::::::::::::::::::::::::::::::::::::::	_	-	64
Guernsey	33	120	159		_	7	166
Hamilton	387	1.198	1,585	156	201	357	1.942
Hancock	19	42	61	4	63	9	. 67
Hardin	34	73	107	9	14	03	127
Наттіѕоп	47	2	22	31	_	ກ	3
Henry	15	77	37				87
Highland	<b>3</b> 8	45	71	က	23	5	18
Hocking	21	74	92				95
Holmes	2	22	8	67		31	31
Huron	19	22	46	_	-	61	48
Jackson	8	112	202	2	9	11	213
Jefferson	86	83	227	4	<u>ı~</u>	11	238
Киох	265		265	67	:	73	267
Lake	23	44	29	4		4	71
L'awrence	<u>7</u>	102	156	9	က	6	165
Licking	53	69	122	2	2	12	134
Logan		:					
Torain	181		181	<b>20</b> 1		<b>x</b> 0	681
Lucas	G	138	203 1		∞	15	218
Madison	2:	80 80	) o	<b>-</b>		<u>-</u>	20.0
Mahoning	44	25	<b>2</b> 2	<b>x</b> 0 6	o o		137
Marion	5.5	040	503	N 10	Ν,	4, 0	29
Medina	177	87 66	₽8	0		00	9
March	9 4	ទ	94	o <del>-</del>	<b>-</b>	- c	6 6 7
Miami	20	 3 88	23	4 60	6	4 1/3	} <u>%</u>
Monroe	ន	88	8		1 63	4	
Montgomery			199		'	'%	224
Morgan	7	18	SS SS	:			প্ত
Morrow	တ္	13	83 8	ea ;	67 :	4	18
Muskingum	40	- 8	93	<b>1</b>	- -	18	111

TABLE No. XIII-Continued.

ļ		1	22	1.18	19	2 2 X	25	22	23	8 8	<b>38</b>	52	74	<b>2.5</b>	11	8	74	81
		Total.			•	-	1		•	-		-		_	-	₩		
ne 30, 1896		Total,	-	4	<b>-</b>	0 °	- N	-		= °	15	13	2°	න ලැ	1 00	œ <b>-</b>		<b>∞</b>
ending Ju	Females.	Single,	-	4	<b>,-</b> 4	က <b>ေ</b>	1		-;	01	P 00	4	₹1 (	<b>3</b>	4	67 -	<b>-</b>	67
during year		Married.				t~ 65		-		— π	) <b>(~</b>	o.	9 (	<b>.</b>	8	9		9
der arrest		Total.	6 5	5 19	8	103	66	26	នុះ	107	2 50	139	2;	12.63	105	294	5 55	æ
Number under arrest during year ending June 30, 1896.	Males.	Single.	- a	4°	88	% % %	1	18	10	59	64	47	47	84	64	728	≥∞	67
4		Married.	610	° ន	55	67	3	œ	12	24 c	33.5	92	11	22	41		တ္ တ	91
		Counties,	Noble	Paulding	Perry	Pickaway Pike	Portage	Preble	Putnam	Kichland Pose	Sandusky	Scinto	Scheca	Shelby Stark	Summit	Trumbull	Union	Van Wert

Vinton	2	49	54	67	7	6	<b>&amp;</b>
Varren	17	64	81		-	-	85
Vashington	35	45	<b>8</b>	. 10	15	83	105
Vayne	Ξ	19	72	က	က	9	28
Williams	7	ඝ	37				સ
Nood	16	89	84		က	က	87
Nyandot	<b>o</b>	75	æ		61	61	<b>8</b>
Total	3,596	6,072		10,091 440	219	986	11,077

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	EXECUTI	IVE DOCUMENTS.
ıses.	Second offense.	251 88 74 88 01 44 8 91 11 11 11 11 11 11 11 11 11 11 11 11
Offenses.	First offense.	82 528 %-2 26222 6
ith-	Violation of ordinances.	w αr- 4 α 8 α α α α α α α α α α α α α α α α α
Charged with-	Misdemeanors.	24 6 6 8 6 8 6 8 6 8 6 8 6 8 6 8 8 6 8 8 6 8 8 6 8 8 6 8 8 6 8 8 6 8
Char	Felonies.	2882888872458888888888
	Total.	119 149 149 149 149 149 149 149 149 149
	Foreign born.	892889 644 61 82 83 85 85 85 85 85 85 85 85 85 85 85 85 85
Born in-	Other states.	40 174 174 174 174 175 176 176 176 176 176 176 176 176 176 176
	Ohio.	20 20 20 20 20 20 20 20 20 20 20 20 20 2
	Counties.	Adams. Alen Ashland Ashland Ashtabula Ashtabula Athens Auglaize Buront Carroll Champaign Clark Clermont Columbiana Coshocton Crawford Cuyahoga Darke

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5200	<b>9</b>	3	æ		7	· :	479	77	37	œ	:	7	:		2	195	63		15	82	<b>%</b>			:		13	16	ი	Ξ			12		-	5	2
124	20.0	5	প্র	7	57		1,463		<u></u>	52		ş		-	88	118	175		45	8	24			:		102	4	ဆ	84	7		\$	-	77	- 6	7
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	276	268	 81 64	1	47	83	523	17	15	13	8	31	প্ত	2	ĸ	46	43	30	8	8	43	16	<b>8</b>	144	31	36	52	38	23	13	83		114	9	<b>3</b> 0 g	77.7
51 240 74	<u>.</u>	169	<b>4</b> %	91	64	991	1,942	. 67	127	99	37	92	32	31	48	213	238	797	7	165	35	178	189	218	86	137	27	46	86	23	58	25	224	25.	97	111
900	1	7	9	_	_	æ	310	13	01	_	က	_	œ	7	_	١~	53	50	ឌ	35	9	55	80	<del>.</del> 5	21	49		<u></u>	ဢ	67	9	9	%	<b></b> .	-	
26.8	2	276	21	-	18	15	2.70	61	7	-	27	=	6:	20	:	ū	40	32	∞	8	16	.e.	63	65	2	စ္တ	9	12	15	'n	=	2	3	က	c	က
208 208	3	294	200	7	45	145	912	35	2	58	35	<del>3</del>	89	19	4	201	169	167	45	3	112	9.	æ	108	9	96	5	33	<b>%</b>	8	4	99	157	ន	ខទ	907
Delaware Krie Rairfield	Farincia	Franklin	Fulton	Geauga	Greene	Guernsev	Hamilton	Hancock	Hardin	Harrison	Henry	Highland	Hocking	Holnes	Huron	Jackson	Tefferson	Knox	I,ake	Lawrence	Licking	Logan	Lorain	Lucas	Madison	Mahoning	Marion	Medina	Meigs	Mercer	Miami	Монгое	Montgomery	Могкап	Morrow	Muskingum

# EXECUTIVE DOCUMENTS.

TABLE No. XIII - Continued.

		Born in-	- 1		Char	Charged with-		Offenses.	ises.	
Counties.		.85	.nr			,810	nsnibro 1	.9	*əsu:	
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	ohio.	Обрет	Forei	Total.	Felon	•baiM	ısloiV	Jeni¶	Secon	\$CU11
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Ottawa	:	-	2	4	• •	-11	-	•		DC
Paulding	33.	× 5	-	£ €	ي د و	5 6	2)	55 44		
Pickaway	3.5	1 9	- 67	133	3 %	8	4	•	'	
Pike	75	8	-	78	17	9	ū	ส	4	
Portage	£3	98	<u>2</u> 2	101	12	28	26	æ	91	
Preble Putnam	<u>×</u>	30 rc	_	2 2	9 9	စ္ ဗ	T ,-	6	8	
Richland	10.	: o	٠,	i i	9	25	•	20	<b>.</b>	
	104	12	2	17.	38	47		62	à	
Sandusky	2	<b>54</b>	<b>30</b>	<b>%</b>	48	8	27	82	Ť	
Scioto	138	01	4	152	R	87	42	121	ñ	
Senera	19	œ	က	74	ęş FÇ	ន	18	æ		
	26	16	9	<u>\$</u>	ន	46	6	67	_	
Stark	32	2	58	127	စ္က	<del>2</del>	49	011	•	
Summit	73	2	8	Ξ	24	47	13	8	-	
Trumbull	200	<u>ල</u> ද	217	209	<del>2</del>	700	94,	382	<u> </u>	
I USCATAWAS	8 :	<u> </u>	`	£ .	7 °	2 5	٥	35	-	
Union was a second seco	# 5			<u>*</u> 5	4 K	7 7	٥	2	9	
	-	3	>	-	3	2	- >	1	4	

Vinton	8	67	-	89	87	17		55	<b>œ</b>
Warren	22	9	_	82	జ	25			:
Washington	45	8	8	105	53	37	15	47	58
Wayne	<b>3</b>	Ξ	4	28	22	45	-	4	<b>7</b> 7
Williams	ន	14		37	25	12		5	22
Wood	51	ဓ္တ	9	82	44	41	:		:
Wyandot	35	23	-	*	11	10	2	24	7
Total	6,813 2	111.	1,515	11,046   3	3,297	4,219	2,462	4,931	2,103

TABLE No. XIII-Continued.

	EXECUT	IVE DOCUMENTS.
	Under 16 years of age.	.∞∞ េ 4 ជ
	Detained as witnesses.	11
	Held for trial.	16 10 10 10 10 10 10 10 10 10 10 10 10 10
	Epileptic.	24
	Іпезпе.	
Illiteracy.	Unable to read and write.	4 28 2111 5 6 4 1 2 8
Illite	Able to read and write.	115 88 88 115 123 63 117 117 27 27 47
	Counties.	Adams Allan Ashland Ashland Ashlabula Athens Athens Athens Authens Authens Authens Authens Authens Authens Authens Authens Authens Authens Carroll Champaign Clark Clark Clark Clark Clark Clinton Clark Coshocton

Delaware Erie Fairfield	23.4 4.4.7 	8.0	11 19	-	22 20	6	400
Fajette Franklin Fulton Gallia		148 20 25	16 6 4		268 4	13	& 83 44
Geauga	61	m	œ e	-	97	21 14	
Hamilton Hancock	1,792	150	႔ ဦး စ	1	1,823	2 27 21	37
Hardin Harrison		0 <del>4</del> 4 0	<u>र</u> २३	4	œ		∞ က
Henry Highland Hocking	# F &	. ro ec	01 e	ಞ	25 95	r 50	7 8
Holmes	31.	-	75		*		<b>-</b> 6′
Jackson Jefferson	118 216	195 28	3 23 75		53 67	īc	. o 1
Knox	55	9	000	-	œ		01 7
Lawrence Licking	 	်င် ဆ	4510		45 36	€ ₹	415
Jokan Lorain	207	11	. e. &!	1	49 187	r 00 93	<b>3</b> 33 31
Madison	112	14 25	r~ 15 ∝		38 110	7	တ ထွ င
Medina Metiks	48	4 6	<u>ت</u> - ي		19		100
Mercer Miami Monroe	22.4 53.1	4 ro ss	4 co	1	15 3	87	22
Montgomery Morgan Morrow Muskingum	24 26 82	1 29	47 1 29		10 1 1		∞ 01 71 ∞

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		Under 16 years of age.	1 21	er : 600 v	11 8 21 9	ထ းသော ရ	2-4
		Detained as witnesses.			-89-		
		Held for trial	4 88	:2736	2888		
		Epileptic.		1	7	ଟୀ :	24
		. Тпвапе.	4 00 10 04 0		25 17 11	v 20 0	5 c 7
	Illiteracy.	Unable to read and write.	4081	20 6 4	51 13 2	15	6 2 2 3
	Illite	Able to read and write.	6 57 54	æ & &	2 E C E V	78 78	44. 12. 85.
		Counties.	Noble Ottawa Paulding Pary	FICKAWAY FICKAWAY Portage Preble	Putnam Richland Ross Sandusky Scioto	Seneca Shelby Stark Summit	Trumbu 1 Tuscarawas Union Van Wert

1 5	4	37		128 444
28	e 4	37	=	4,210
	67			39
	28	7	4	810
	32	7	-	1,242
8	73	37		2,796
Vinton Warren 81 1	Washington Wayne	Williams . Wood	Wyandot	Total

## EXECUTIVE DOCUMENTS.

TABLE No. XIII-Continued.

	HALVEU I	IVI DOCUMENTS
-uos	Total received from countor for maintenance of prisers for the year.	\$602.15 1,797.50 1,697.50 2,806.50 2,806.50 2,202.20 1,049.30 3,861.00 3,861.00 1,793.00 1,793.00 1,793.00 4,88.00 689.00 1,660.0
	Escaped.	ε 2 1 1 <del>4</del> -Γ-1 11
	Died.	
-11	Average length of jail ser tence (days).	20 20 20 20 20 20 20 20 20 20 20 20 20 2
	Jail during year.	1 1 1 4 4 4 4 4 4 4 7 7 7 1 1 2 3 1 3 1 1 3 1 1 1 1 1 1 1 1 1 1 1
<b>5</b>	Могкроиѕе.	3833 72 74 75 64 57 883
Sentenced to	Penitentiary.	23 23 24 24 25 25 26 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27
Set	Girls' Industrial Home.	- 2 1-2
	Boys' Industrial School.	21 82 8 8 01 14 6 2
	Counties.	gn nna nna

# EXECUTIVE DOCUMENTS

TABLE No. XIII-Continued.

	manco:	
	Total received from coun for maintenance of pricers for the year,	\$77 00 1,157 00 1,157 00 1,986 00 1,985 55 802 95 782 15 883 04 1,344 20 1,344 20 1,553 40 1,500 00 1,
	Escaped.	1 2
	Died.	
-u	Average length of jail ser tence (days).	30 112 122 133 135 135 135 135 135 135 135 135 135
	Jail during year.	- 82 22 22 22 24 4 4 4 4 5 5 5 5 5 5 5 5 5
to	Могкроизе.	1201400 0000 140840 01
Sentenced to	Penitentiary.	
Sen	Girls' Industrial Home.	03 03
1	Boys' Industrial School.	
	Counties.	Noble. Noble. Noble. Pottava Pottava Perry. Pickaway Pickaway Pickaway Portac Portac Portac Preble Putnam Richland Ross Sandusky Scioto Seneca Seneca Summit Trambull Trambull Trimbull Trinbull Tuton.

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Vinton		<b></b>	2						S 55
Warren	7		÷	21	31	<u>≈</u>			1,095 50
Washington	1	_	-	9	8	8		æ	1,083 55
Wayne	1		22	<b></b>	82	10		:	1,230 50
Wiffiams	1	:	-	20	-				00 009
Wood		:	18	2	20	<u></u>		_	1,426 56
Wyandot		_ <u>:</u>	_	81	91	<u>x</u>			388 30
Total	167		500,1	725	955	626	=	89	\$130,238 88

TABLE NO. NIII-Continued.

	EXECUTIV	E DOCUMENTS	<b>.</b>	
	Total.	+ 9 - <u>x</u> 0 m G	12 ° 78:	1-1-m m
ning in	Epileptic.			
Number of prisoners remaining in jail June 30, 1896.	Іпяяне.			
isoners une 30,	U. S. prisoners.			9-
r of pr jail J	1)etained as witnesses.			
Numbe	Awaiting trial.	4 & L + X 10	5 11 11 2	6 2 2 3 4 -
	Serving sentence.	<u> </u>	5-1-1-	-4- 43
srii	Total expended for repa	00 97 <b>4</b>	70 00	75 00 2,500 00 400 00
×1	Price allowed for keepir	200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S 22 S2 51 S	
	Counties.	Adams	Butler Carroll Champaign Clark A	Clinton Columbiana Coshocton Crawford Cuyahoga. Darke.

	BOARD OF	STATE CHARITIES.	803
2311- SE 2010	5,13,4,5,-4,4		. r- r0 4 4 4 4 4 4 4 4
			-
	- 11- 111		<b>-</b>
-			21
S 21 1. E u u	∞-10+∞-01-+	4517- 84517-815 -	x 5 2 - 10
71 71	71 71 70		
	8 88 8		
45 00 1,650 00	500 00 1,500 00 20 00 20 00	25 00 300 00 285 00 200 00 347 00	70 00
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	EXECUT	IVE	D	oct	MI	îN'	TS.						
	Total.		:	10 T	<u> </u>	. 23		= 3	. <del>.</del> 2	!~	n x	w.e.	43150
ning in	Epileptic.		-										
remain 1896.	insane,												
Number of prisoners remaining in jail June 30, 1896.	U. S. prisoners.												
r of pr jail J	Detained as witnesses.		_ :										
Numbe	Awaiting trial.			4	ಞ ಣ			2 %	က <b>ဗ</b>	· •	თ <b>~</b>	 चा	~·
	Serving sentence.		_	-	<b>→</b>	· 21			· es ·e				;-
ST.	Total expended for repai during the year.	\$25 00		58 58	25 00		왕 글 중 왕	90 90	98		3 :	25 00 193 65	00 2
 K	Price allowed for keeping prisoners per day.	8	 9	88	당 <b>않</b>		જી જિ	¥ 8	<u>8</u> 4	.e.	3 .Z	333	- <u>-</u>
	Counties.	Noble	Ottawa	Paulding Perry	Pickaway Pike	Portage.	Preble . Putnam	RichlandRoss	Sandusky	Seneca	Shelby. Stark	Summit Trumbull	Tuscarawas. Union. Van Wert

Vinton	20 - 02	50	<b>-</b> :					- 8
Warren	ج ح	3. 3	=	:	2	******	-	₹.
	55 30	90	œ	:	_			21
Wayne	당	<u>8</u>	_		:			-
	 				:		:	:
Wood	÷	21	9					<b>∞</b>
Wyandot	<u>0</u>		:	:		:	1	:
Totals	\$10,417 10	100	406	12	83	t-	61	648
			_				_	

3 recaptured: 1 recaptured: 3 recaptured.
Sentence suspended during good behavior.

«A munit received for maintenance from Jan. I to July I, 1896.

»A verage number of days.

TABLE NO. NIV. -GENERAL SUMMARY

EXECUTIV	ED	UC	U	<b>M</b>	L.	4 I	₽.			•								
Per capita cost on number actually in the institution, and total current expenses, including salaries.						172 95												\$125 29
Total current expenses for the year, including salaries.						173,988 43			141,579 35									\$2,062,551 93
Daily average number actually in institution.		618	100,1	1,274	G::&	1,006	1,276	916	333	378	252	968	1,041	773	345	2,174	171	13,727
Тотя пишрег гот тре уеят.		1,057	1,307	70°.	1.047	1,518	1,635	. X.C.	1,0,1	4×4	313	1,046	1,829	1,234	· · · ·	3,298	212	009'81
Location.		Athens	Cleveland	Columbus	Dayton	Carthage	Toledo	Gallipolis	Columbus			Nenia	Sandusky	Lancaster	.Delaware	Columbus	Mansfield	
Name of institution.	State Institutions.	Athens State Hospital	Cleveland State Hospital	Columbus State Hospital	Dayton State Hospital	Longview Hospital	Toledo State Hospital	Ohio Hospital for Epileptics	Institution for Feeble-Minded Youth	Institution for Deaf and Dumb	Institution for Blind	Soldiers' and Sailors' Orphans' Home	Soldiers' and Sailors' Home	Boys' Industrial School	Cirls' Industrial Home	Ohio Penitentiary	Ohio State Reformatory	Total state institutions

	5,790 32 55,898 02 120 45 45,953 02 103 97 6,266 09 13,156 00 14 57 10,025 45 3,763 62 19,142 57 62,655 33 165 75	222,650 42	863,376,44 223,755,03 130,238,88 516,634,59 3,42407,36	\$2 <mark>,</mark> 076,412 30   4,361,614 65
	02 64 64 64 64 64 64 64 64 64 64 64 64 64	1,523	84.8	8,481
	265 28,666 28,855 28,4 798 798 84,4 84,4 84,4 84,4 84,4 84,4 84,4 84	12,850	23.842 3,548 11,077 30,000	153,300 184,750
. Hunicipal Institutions.	Workhouse       Cincinnati         Workhouse       Cleveland         Workhouse       Columbus         Workhouse       Dayton         Workhouse       Xenia         Workhouse       Xenia         Workhouse       Xenia         Workhouse       Zanesville         House of Refuge       Cincinnati	Total	County Infrmaries. County Children's Homes. County Jails. Outdoor relief. Soldbers' Relief Commission.	Total Grand total

Estimated number on basis of the sixty-five counties reporting.

# Thirteenth Annual Report

OF THE

Department of Inspection of

# Workshops, Factories

and Public Buildings,

TO THE

Governor of the State of Ohio,

FOR THE YEAR 1896.

## LETTER OF TRANSMITTAL.

DEPARTMENT OF INSPECTION OF WORKSHOPS AND FACTORIES, COLUMBUS, OHIO, August 3, 1897.

To His Excellency, ASA S. BUSHNELL, Governor of Ohio.

SIR: I have the honor to herewith submit to you the Thirteenth Annual Report of the Department of Inspection of Workshops and Factories for the year ending November 15, 1896.

Very respectfully yours,

J. W. KNAUB, Chief Inspector.

# Thirteenth Annual Report.

## INTRODUCTORY.

Another period of twelve months has passed which brings us to the end of the fiscal year of this Department. In submitting the Thirteenth Annual Report I regret to say that the work of the year has not been as satisfactory as was desired. The inspections are less in number than those of the previous year, though not caused from any neglect of the Department, but owing to causes over which we had no control. The depressed condition of business, especially manufacturing, which existed, and of which mention was made in the two former reports, the eleventh and twelfth, continued to exist with greater severity during the entire fiscal year ending Nov. 15, 1896, and still continues, which seriously interfered with and retarded the work of the Inspector. Indeed to such an extent were the workshops and factories closed as to make it useless to attempt a general inspection, and the inspections that were made may be called cullings, from the fact that the work of the year falls short of our expectations and wishes, but it is pleasing to note how generally the orders issued by the Department have been complied with. It is also gratifying to know that the great majority of manufacturers welcome the Inspectors with pleasant greetings and give them all the assistance possible, feeling that if the Inspector has made a thorough inspection of their premises and caused orders to be issued to them, and if such orders have been complied with to the letter, that the liability for accidents to occur is materially reduced, and they are to that extent relieved from responsibility. We are also gratified to know that our work is appreciated, not only within our own territory, but beyond the borders of the State, and the demand for our annual reports is constantly increasing. Not only are the reports of this Department applied for by individuals, but applications come from libraries, colleges, etc., for complete sets, which requests cannot be granted from the fact that a number of the yearly editions are entirely exhausted. But recently a communication was received from the Vienna Chamber of Commerce and Industry of Lower Austria, through their President and Secretary, requesting to be favored with our report. The same request has been made by associations, etc., in England and France, for a number of years past. This certainly is evidence that the Department of Workshops and Factories has earned a reputation and is recognized as an agency through which good results have been achieved. Digitized by Google

## INSPECTION OF SHOPS AND FACTORIES.

As noted in the eleventh and twelfth annual reports, many shops and factories were found closed by our Inspectors, which will account, to some extent, for a less number of factory inspections than the previous year.

There were inspected during the year 765 shops and factories, for which orders were issued and complied with, 88 for which orders were issued and not complied with, 1,174 for which no orders were issued, making a total number of shops and factories inspected of 2,027. Though the report shows 88 shops and factories inspected and reported by the Inspector on his second visit as not complied, yet we have every reason to believe that many of such orders have been complied with and the owner of the factory has failed to notify the Department. Tabulated statement of each district will be found elsewhere in this report.

## INSPECTION OF BUILDINGS.

The inspection of factory and public buildings has become a very important feature, and particularly is this so since the last General Assembly extended the jurisdiction of this Department to reach all public buildings in the State, wherever located. Prior to amendment of the act the Department of Workshops and Factories had jurisdiction over such public buildings only as were located within the corporation limits of a city, town or village. There was no good reason why public school buildings, county infirmaries and children's homes located on the outside of city, town or village limits should not receive the same attention as those within the corporate limits of a city, town or village, and the attention of the last General Assembly having been called to this fact, the act was amended without a dissenting vote. There have been inspected during the year 2,205 buildings, classified as follows:

FACTORY BUILDINGS.—There were 458 inspected for which orders were issued and complied with, 67 for which orders were issued and reported not complied with by the Inspector on second visit, 1,278 inspected and found to conform to the law, and no orders issued, making a total of 1,803.

OPERA HOUSES AND THEATER BUILDINGS.—There were 17 inspected for which orders were issued and complied with, 2 for which orders were issued and not complied with, 9 inspected for which no orders were issued, making a total of 28.

Public Hall Buildings.—There were 103 inspected for which orders were issued and complied with, 42 inspected for which orders were issued and not complied with, 6 inspected for which no orders were issued, making a total of 151.



COLLEGE AND PUBLIC SCHOOL BUILDINGS.—There were 71 inspected for which orders were issued and complied with, 31 for which orders were issued and not complied with, 26 inspected for which no orders were issued, making a total of 128.

HOTEL BUILDINGS.—There were 15 inspected for which orders were issued and complied with, 1 inspected for which order was issued and not complied with, 12 inspected for which no orders were issued, making a total of 28.

TENEMENT BUILDINGS.—There were 8 inspected for which orders were issued and complied with, 2 inspected for which orders were issued and not complied with, making a total of 10.

MERCANTILE BUILDINGS.—There were 12 inspected for which orders were issued and complied with, 2 inspected for which orders were issued and not complied with, 2 inspected for which no orders were issued, making a total of 16.

MISCELLANEOUS BUILDINGS.—There were 12 inspected for which orders were issued and complied with, 1 inspected for which order was issued and not complied with, 3 for which no orders were issued, making a total of 16.

#### HOTELS.

In the Eleventh Annual Report I recommended to the General Assembly the enactment of a law requiring a license for the purpose of conducting hotel business. My reasons for making such recommendation was based on the fact that a large number of hotel properties in this State were owned by persons residing outside of its limits, with no agent residing within the State, consequently the efforts of the Department to compel the owners of such property to provide sufficient egress and means of escape in case of fire were futile. The State by statute protects the interests of hotel keepers, and thereby hotel property, against imposition by those who may patronize them, and this being the case it is no more than just that the State should also demand that the patrons of hotels should be protected as well. Therefore a license law should be enacted, conditioned that the exits and means of egress from hotels must be satisfactory to the Inspector of Workshops and Factories, and be so worded that the owners of hotel property residing outside of the State could be forced to comply with the orders issued by this Department for providing better egress from their buildings.

#### INFIRMARIES.

The Seventy-second General Assembly so amended section 2572 of the Revised Statutes, as to extend the jurisdiction of this Department over the entire State, as to certain buildings enumerated therein. This

extension of jurisdiction places many new duties on the Department, among others the inspection of county infirmaries, etc. Such inspections disclose a condition of affairs in some instances that are deplorable. The manner in which the inmates are housed, very often in buildings entirely unsuitable for the purpose and dangerous to the health and lives of the occupants, should suggest that a different class of buildings be provided. The main building should not be more than two stories in height, and the hospital and jail buildings should be entirely separate from the main building and constructed of material so as to be as near fire-proof as possible, and also in a manner that they can be easily kept clean and in good sanitary condition. It is necessary to keep locked the buildings in which the demented and vicious of our county infirmaries are housed, and for this reason, among others, such buildings should be provided as suggested. Quite frequently the Inspectors find huddled together a number of unfortunate people in buildings that are veritable fire-traps and pestilence breeders. One of the District Inspector's found, when inspecting one of the county infirmaries, two old frame buildings styled jails, that were used for the purpose of keeping in custody such of the inmates as it was found necessary to place in restraint. These structures were heated by stoves, and at night the unfortunates were locked in their quarters. The person having charge of the keys was quartered in the main building, and should a fire have occurred during the night under these conditions, the result to the inmates would have been most disastrous. Such a condition of affairs should not exist. is not in keeping with our system of free and charitable institutions. From the fact of some of our citizens, who were once prosperous, perhaps, and had assisted during their prosperity to keep up our charitable institutions, is more the reason why, after becoming so unfortunate as to be compelled to spend their last days in a county infirmary, that they should be made as comfortable and secure from danger from fire and the ravages of disease as possible.

## BLOWER LAW.

In the Eleventh Annual Report I recommended to the General Assembly the enactment of a law whereby this Department would be empowered to compel the owners of dust-creating machinery to provide exhaust systems to carry away dust created by such machinery while in motion. The Seventy-second General Assembly, seeing the humanity, justice and necessity of such a law, passed, April 17, 1896, the following:

"An act to create a better sanitary condition in workshops and factories, where dust-creating machinery is used.

"Section 1. Be it enacted by the Geneal Assembly of the State of Ohio, That all persons, companies or corporations operating any factory or workshop, where emery wheels or emery belts of any description are used, either solid emery,



leather, leather-covered, felt, canvas, linen, paper, cotton, or wheels or belts rolled or coated with emery or corundum, or cotton wheels, used as buffs, shall provide the same with blowers, or similar apparatus, which shall be placed over, beside or under such wheels or belts in such manner as to protect the person or persons using the same from the particles of dust produced and caused thereby, and to carry away the dust arising from, or thrown off by such wheels or belts while in operation, directly to the outside of the building or to some receptacle placed so as to receive and confine such dust; provided, however, small emery wheels that are used temporarily for tool grinding, that do not create dust enough in the opinion of (the) inspector of workshops and factories to be injurious to the operator, shall be exempt from the conditions of this act.

"Section 2. Any such person or persons and the managers or directors of any such corporation who shall have the charge or management of such factory, or workshop, who shall fail to comply with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof before any court of competent jurisdiction shall be punished by a fine of fifty dollars and not exceeding two hundred dollars for each offense, or imprisonment in the county jail not less than thirty days or exceeding ninety days, or both such fine and imprisonment, in the discretion of the court.

"Section 3. It shall be the duty of the inspector of workshops and factories to enforce the provisions of the above act, and to prosecute all violations thereof in any court of competent jurisdiction, and all fines shall be collected by the court in which conviction is had, the same to be turned over to the chief inspector of workshops and factories, he to pay the same to the treasurer of state to be credited to the general revenue fund.

"SECTION 4. In all prosecutions brought by or under the direction of the inspector of workshops and factories for the violation of the above act, he shall not be required to give security for costs, but in all cases where the accused be acquitted, or if convicted and found to be indigent, then the costs to be paid out of the treasury of the county in which proceedings are brought, the same as costs in all cases for misdemeanors are paid.

"SECTION 5. This act shall take effect and be in force on and after its passage."

Much good has been accomplished since the law has been in operation, and a great benefit will be derived in health-saving by persons who operate dust-creating machines by being relieved from inhaling the dust and small particles of metal, etc., cast off by the machines while in operation.

## BAKESHOP LAW.

During the session of the Seventy-second General Assembly a bill was laid before that body to regulate the manufacture of flour and food products and for the inspection of such places of manufacture, and on April 27, the bill became a law, which reads as follows:

"An act for the regulation of the manufacture of flour and meal food products.

"Section 1. Be it enacted by the General Assembly of the State of Ohio, That no employe shall be required, permitted or suffered to work in a biscuit, bread or cake bakery or confectionary establishment more than sixty hours in one week, or more than ten hours in one day, unless for the purpose of making a shorter work day on the last day of the week, nor more hours in one week than will

average ten hours per day for the whole number of days in which such person shall so work during the week; and the working time shall begin by entering the shop and be concluded ten hours thereafter. No employe in any biscuit, bread or cake bakery shall be discharged by his employer for having made any truthful statement as a witness in a court, or to the factory inspector, in pursuance of this act.

"SECTION 2. The manufactured flour of (or) meal food products shall be kept in perfectly dry and airy rooms, so arranged that the floors, shelves and all other facilities for storing the same can be easily and perfectly cleaned.

"SECTION 3. Every such bakery shall be provided with a proper wash room and water-closet or closets, apart from the bake-room or rooms where the manufacturing of such food products is conducted; and no water-closet, earth-closet, privy or ash-pit shall be within or communicated directly with the bake-room of any bakery, hotel or public restaurant.

"SECTION 4. All buildings or rooms occupied as biscuit, bread or cake bakeries shall be drained and plumbed in a manner to conduce to the proper healthful and sanitary condition thereof, and constructed with air-shafts, windows or ventilating-pipes, sufficient to insure ventilation, as a factory inspector or any of his deputies shall direct. No cellar or basement not now used as a bakery, shall be hereafter used and occupied as a bakery, and a cellar heretofore occupied shall, when once closed, not be reopened, unless the proprietor shall have previously complied with the provisions of this act.

"Section 5. Every room used for the manufacture of flour or meal food shall be at least nine feet in height. The side walls and ceilings of such rooms shall be plastered or wainscoted, and if required by the factory inspector shall be white-washed at least once in three months. The furniture and utensils of such room shall be so arranged that the furniture and floor may at all times be kept in a proper healthful sanitary condition. No domestic animals, except cats, shall be allowed to remain in a room used as a biscuit, bread or cake bakery, or for the storage of flour and meal food products.

"SECTION 6. The sleeping places for persons employed in a bakery shall be kept separate from the room or rooms where flour or meal food products are manufactured or stored, and the factory inspector or deputy factory inspector may inspect such sleeping places, if they are on the same premises as the bakery, and order them cleaned or changed in compliance with sanitary principles.

"SECTION 7. For the purpose of enforcing this act the chief inspector of workshops and factories shall appoint two additional district inspectors who shall be appointed in the same manner and possess the same qualifications, and whose term of office shall be the same, and on the same conditions, and receive the same compensation as the district inspector authorized by section 2572a including sections two and three and section 2573a-2 Revised Statutes. After the inspection of a bakery has been made and it is found to conform to this act the chief inspector may issue a certificate to the owner or operator of such bakery that it is conducted in compliance with all the provisions of this act; but where orders are issued by the inspector to improve the conditions of a bakery no such certificate shall be issued until such order and the provisions of this act shall have been complied with.

"SECTION 8. The owner, agent or lessee of any property affected by the provisions of sections 2, 3 or 5 of this act, shall within thirty days after the service of a notice requiring any alterations to be made in or upon such premises, comply therewith, and such notice shall be in writing and may be served upon such owner, agent or lessee either personally or by mail, and a notice mailed to last known address of such owner, agent or lessee, shall be deemed sufficient for the purpose of this act.



"Section 9. Any person who violates the provisions of this act or refuses to comply with any requirement of the factory inspector for deputy factory inspector, as provided herein, shall be guilty of a misdemeanor, and on conviction shall be punished by a fine of not less than twenty nor more than fifty dollars for the first offense, and not less than fifty nor more than one hundred dollars for the second offense, or imprisonment for not more than ten days, and for the third offense by a fine of not less than two hundred and fifty dollars and not more than thirty days' imprisonment.

"SECTION 10. This act shall take effect thirty days after its passage."

The act provided for the appointment of two additional inspectors, but unfortunately no appropriation was made by the general assembly to carry the law into effect, consequently no appointments could be made. Laboring under this difficulty an appeal was made to the Emergency Board, and when the need of making the law operative was so forcibly presented to the members, they were induced to create a deficiency, which enabled me to appoint two inspectors as provided for in section 7 of the act. With the approval of the governor I appointed Mr. William Woehrlin, of Cincinnati, on the 24th of September, 1896, as Inspector for the Southern District, and on the 30th of September, 1896, Mr. Theodore Wagner, of Cleveland, Inspector for the Northern District of Ohio. At the time of the appointment of the inspectors but six weeks remained in the fiscal year of 1896, and it was deemed advisable to not put the inspectors in the field until the beginning of the new fiscal year, 1897. I believe both the appointees to be well qualified to perform their several duties, and that the general public will be greatly benefited by the operation of the law.

## SWEAT SHOP LAW.

By the urgent request of organized labor and the many friends thereof, the following act was passed by the General Assembly April 27, 1896:

"An act to provide for the preservation of the public health.

"Section 1. Be it enucted by the General Assembly of the State of Ohio, That no dwelling or building, or any room or apartment of itself, in, or connected with any tenement or dwelling or other building, shall be used, except by the immediate members of the family living therein for carrying on any process of making any kind of wearing apparel, or goods for male or female wear, use or adornment, or for the manufacture of cigars, cigarettes, or tobacco goods in any form, when such wearing apparel or other goods are to be exposed for sale, or to be sold by manufacturer, wholesaler or jobber, to the trade or by retail, unless such room or apartment shall have been made to conform to the requirements and regulations provided for in this act.

"Section 2. Each such room or apartment used for the purpose aforesaidshall be regarded as a workshop or factory, and shall be separate from and have no door, window or other opening into any living or sleeping room of any tenement or dwelling, and no such workshop or factory shall be used at any time for living

or sleeping purposes, and shall contain no bed, bedding, cooking or other utensils, excepting what is required to carry on the work therein; and every such shop or factory shall have an entrance from the outside direct, and if above the first floor shall have a separate and distinct stairway leading thereto, and every such workshop or factory shall be well and sufficiently lighted, heated and ventilated by ordinary, or, if necessary, by mechanical appliances, and shall provide for each person employed therein, no less than 250 cubic feet of air space in day time, and 400 cubic feet at night, and shall have suitable closet arrangements for each sex employed therein, as follows: Where there are ten or more persons, and three or more to the number of twenty, are of either sex, a separate and distinct water-closet, either inside the building, with adequate plumbing connections or on the outside at least twenty feet from the building, shall be provided for each sex; when the number employed is more than twenty-five of either sex, there shall be provided an additional water-closet for such sex up to the number of fifty persons, and above that number in the same ratio, and all such closets shall be kept strictly and exclusively for the use of the employes and employer or employers of such workshops or factory; provided that where more than one room is used under the direction of one employer, all such rooms are to be regarded as one shop or factory, and every such workshop or factory shall be kept in a clean and wholesome condition, all stairways and the premises within a radius of thirty feet shall be kept clean, and closets shall be regularly disinfected and supplied with disinfectants, and the inspector of factories or his assistants may require all necessary changes, or any process of cleaning, painting or whitewashing which he may deem essential to assure absolute freedom from obnoxious odor, filth, vermin, decaying matter or any condition liable to impair health or breed infectious or contagious diseases; he shall prevent the operation of such shops and factories that do not conform to the provisions of this act, and cause the arrest and prosecution of the person or persons operating the same.

"Section 3. No person for himself, or for any other person, firm or corporation, shall give out work to or contract with any other person to perform such work necessary to make such goods mentioned in section one, after having received notice from the inspector of factories or his assistants, that said latter person has not complied with the provisions of section two of this act which notice shall remain in force, until said person has complied with this law, of which notice must be given to the employer by the inspector of factories or his assistants.

"Section 4. Every such person, firm or corporation heretofore mentioned, shall obtain and keep a record of all persons to whom work is given out or contracted for, including their names and addresses, which record shall be opened to inspection of the state inspector of workshops and factories, when called for.

"Section 5. No person, firm or corporation shall receive, handle, or convey to others, or sell, hold in stock or expose for sale any goods mentioned in section one, unless made under the sanitary conditions provided for and prescribed in this act; but this act shall not include the making of garments or other goods by any person for another by personal order, and when received for wear, or used direct from the maker's hands, and all violations of the provisions of this act shall be prosecuted by the inspector with the advice and consent of the chief inspector of workshops and factories.

"Section 6. Any person, firm or corporation who shall violate any of the provisions of this act shall, upon conviction thereof, be fined in any sum not less than fifty dollars nor more than one hundred dollars for each offense, or imprisioned not less than thirty nor more than sixty days or both, at the option of the court, such fine to be collected by the court in which conviction is had and turned over to the chief inspector of workshops and factories, and by him to be paid into the state treasury to be credited to the general revenue fund; and in all prosecutions

brought by or under the direction of the inspector of workshops and factories for the violation of this act, he shall not be held to give security for costs, or adjudged to pay any costs, but in all cases where the accused be acquitted or is found to be indigent, the costs shall be paid out of the county treasury of the county in which proceedings are brought, the same as the costs in all other cases of misdemeanor.

"SECTION 7. This act shall take effect and be in force on and after its passage."

As there are very few places as may be termed "sweat shops" in the State of Ohio, or at least such as would be so termed under the law, the Department has experienced very little trouble in causing compliance with the act. Wherever sleeping or living rooms were found to be connected by doors with such shops, doors were ordered to be sealed and securely closed, and so to remain as long as the rooms were used for manufacturing purposes. The enactment of the law seemed to be a fore-runner or notification, as the Inspector found on his visit to such establishments that the proprietors thereof had taken the precaution to conform to the mandates of the law without being notified to do so by the Department.

## MANUFACTURE AND PLACES OF STORAGE OF HIGH EXPLOSIVES.

Some difficulty has been experienced by the High Explosive Inspector the past year in keeping trace of high explosive storage places and the owners thereof. Oftimes he would find two or three storage places in close proximity to each other and would suppose that all were owned by the same person or company, but further investigation would reveal the fact that they were owned by separate individuals : Sometimes orders would be issued or companies. supposed to own a place of storage when the Department would be notified that they were not the owners, nor could anything further be elicited from those to whom order had been issued as to the name or address of the owner, therefore, many visits had to be made by the Inspector to these different localities to gain facts sufficient to warrant the issuing of an order. Almost all these storage places and contents are owned by companies in other States and are placed in the hands of agents, and as there is no way of getting at non-resident owners, the Inspector must hunt up the agent in order to serve notice in case the storage place and contents are located in a hazardous place. There are many obstacles encountered while inspecting places of storage of high explosives which Inspectors do not come in contact with while inspecting shops and factories.

During the year the following places of storage have been inspected by High Explosive Inspector Ducomb:

December 17, 1895, a powder magazine owned by the Hazard Powder Co., of Hazardsville, Conn., R. S. Waddell, General Agent, was inspected and found to be located in the first ward, Toledo, near the W. & L. E. R. R. tracks and about fifteen hundred feet from a school house and a number of dwellings within fourteen hundred feet; magazine built of brick and contained at the time of inspection, 3,000 pounds of powder. The Inspector deemed the place of storage dangerous to life and property, and on December 21, the following order was issued to the agent of the company:

"Order No. 1—Remove magazine and contents to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine to be constructed of brick, with iron doors and metal roof of some character, whole to be fire-proof, and if used for storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, heating apparatus to be not less than thirty feet from magazine, magazine to contain not more than five hundred pounds of high explosives at any one time."

After notification was received by Company, contents of magazine was removed and use of storehouse discontinued.

December 17, 1895, magazine owned by A. J. Rummel was inspected, located in first ward, Toledo, near W. & L. E. R. R. tracks, about seventy-five feet from occupied dwellings, seven hundred feet from a school house and found to contain 3,500 pounds of powder and twenty-five pounds of dynamite; magazine constructed of boards and sided with sheet-iron. Inspector considered storage place hazardous and after receiving his report the following order was issued to A. J. Rummel:

"Order No. 2—Remove explosives to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine constructed of brick, with iron doors and metal roof of some character, whole to be fire-proof, and if used for the storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, heating apparatus to be not less than thirty feet from magazine, magazine to contain not more than five hundred pounds of high explosives at any one time."

Some time after the above order was issued the Inspector again returned to location of storage place and found use of magazine discontinued.

December 18, 1895, an inspection was made of a powder magazine owned by the Dupont Powder Company of Wilmington, Delaware, C. R. Rood, agent, and was found to be located in first ward, Toledo, near W. & L. E. R. R. tracks and within fifteen hundred feet of a school house and about fourteen hundred feet from occupied dwellings and to contain fifteen thousand pounds of powder. The Inspector believed the storage place to be extremely dangerous from the fact of the enormous amount contained in magazine, and the following order was issued to C. R. Rood, agent:



"Order No. 30.—Remove explosives to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine constructed of brick, with iron doors and metal roof of some character, whole to be fire-proof, and if used for the storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, heating apparatus to be not less than thirty feet from magazine, magazine to contain not more than five hundred pounds of high explosives at any one time."

After order was received by Mr. Rood, he notified the Department that he had forwarded same to Company. In a few days communication was received from Clinton Bidwell, General Agent of the Company, expressing willingness to comply with order but asked privilege to delay removal until spring. Department not wishing to take responsibility of allowing magazine to remain in such hazardous location did not grant the request. When the Inspector made his second visit he found contents removed and use of magazine discontinued.

December 18, 1895, an inspection was made of a powder magazine owned by the Oriental Powder Co., Boston, Mass., Stollberg, Clapp & Co., agents, located near W. & L. E. R. R. tracks, in first ward, city of Toledo, and within fifteen hundred feet of a school house, dwelling houses within fourteen hundred feet, building constructed of brick and being used by a number of local firms and about eight thousand pounds of powder stored therein. The Inspector made his report to Department and the following order was issued:

"Order No. 4.—Remove explosives to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine to be constructed of brick, with iron doors and metal roof of some character, whole to be fire proof, and if used for the storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, heating apparatus to be not less than thirty feet from magazine, magazine to contain not more than five hundred pounds of high explosives at any one time."

Some time after order had been issued, the Inspector again investigated and found magazine and contents removed.

December 19, 1895, nitro-glycerine magazine owned by The Bradford Glycerine Co., C. S. Corthell, manager, located about two and one-half miles west of Gibsonburg, on a tract of land owned by Lewis Solomon, in Madison township, Sandusky county, was found by the Inspector to be constructed of wood, brick and iron, and 139 rods from a school house, 150 rods from dwelling houses and forty-five rods from a public highway, and believed to be located at a place very hazardous to destruction of life and property. On December 23, the following order was issued to C. S. Corthell, manager of the Bradford Glycerine Co.:

"Order No. 5.—Remove magazine or storehouse and contents to a place of safety, to be not less than one hundred and sixty rods from any public or private building, highway or railroad, magazine or store-house to be constructed of brick with iron



doors, roof to be of metal of some character, the whole to be fire-proof and heated by hot water only, heating apparatus to be not less than thirty feet from magazine or storehouse and the magazine or storehouse to contain not more than five hundred pounds of high explosives at any one time."

Thirty days or more transpired before the Inspector returned to see if order had been obeyed but found magazine in same condition as when inspected. Warrant was issued for arrest of C. S. Corthell, manager, for disobedience to order of Department and violating the law. A bill was found against him by Grand Jury and case is now pending in Court of Common Pleas of Sandusky county.

February 25, 1896, an inspection was made of a magazine owned by the Miami Powder Co., Pliney, Watson & Co., agents, located one mile east of Toledo. The magazine was found to be constructed of iron, very substantial and located so as to not be dangerous to life and limb or the destruction of property, therefore no order was issued.

February 25, 1896, an inspection was made of a magazine located two miles south of Toledo, in Oregon township, Wood county, owned by R. A. Bartley, of Toledo, and was found to be located on the line of a public highway and only forty rods from a dwelling house and contained 450 pounds of powder. The Inspector believed the magazine to be in a dangerous place and therefore the following order was issued March 2:

"Order No. 7.—Remove explosives to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine to be constructed of iron, or frame covered with iron, with wooden doors covered with metal and metal roof of some character, whole to be fire-proof, and if used for the storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, the heating apparatus to be not less than thirty feet from magazine."

A communication was received from R. A. Bartlett on March 3, stating that powder would be all closed out before the expiration of thirty days. On March 28 Department was notified that the entire contents of the magazine had been removed.

May 14, 1896, an inspection was made of a powder magazine owned by Perry Wiles & Sons, Zanesville, located close to the corporation line of city and near C. S. & H. R. R. tracks and round house, within four hundred feet of two dwelling houses and on line of public road. There were stored in this magazine 6,000 pounds of powder at time of inspection, and Inspector believing storage place to be extremely hazardous, caused the following order to be issued from department headquarters on June 3:

"Order No. 8.—Remove explosives to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine to be constructed of iron or frame covered with iron, wooden doors covered with metal and metal roof of some character,



whole to be fire-proof, and if used for the storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, heating apparatus to be not less than thirty feet from the magazine."

After an order had been received by Perry Wiles & Sons communication was received from firm expressing a willingness to conform to the law and asking that the Inspector be instructed to visit Zanesville and select location for magazine. Some time during the month of July Inspector Ducomb selected a location for magazine, and in a few weeks the firm erected new storage house on site selected and removed all high explosives from old to new magazine, thus complying with order issued.

May 27, 1896, an inspection was made of a high explosive manufacturing plant owned by A. J. Rummel Arms Co., and located about eight miles northeast of Toledo, in Washington township, and found to be located in a fairly secure place, therefore the Inspector issued no orders.

June 25, 1896, an inspection was made of a storage place for powder owned by John Ryan and located in the village of White House, Lucas county, in close proximity to dwelling houses, and the Inspector believing it to be very dangerous to the lives of the citizens living in the village, asked that the following order be issued for the removal of the explosives:

"Order No. 10.—Remove to a place of safety contents of powder magazine, such place to be not less than one hundred and sixty rods from any public or private building, public highway or railroad; powder to be stored in building to be erected for that purpose, as near fire-proof as possible, and not more than five hundred pounds of powder or other explosives to be stored at any one time in such magazine."

Some time after order had been issued Inspector made another investigation and found explosives removed as ordered.

June 29, 1896, an inspection was made of a nitro-glycerine storage place owned by the Bradford Nitro-Glycerine Company, C. S. Corthell, manager, located two miles west of St. Mary's, Auglaize county, and was found that to conform to the law it would be necessary to cause the removal of storage place and contents, therefore the following order was issued July 11:

"Order No. 11.—Remove nitro-glycerine to a place of safety, to be not less than one hundred and sixty rods from any public or private building, highway or railroad, magazine or storehouse, to be constructed of brick, with iron doors, the roof to be of metal of some character, the whole to be fire-proof and heated by hot water only, heating apparatus to be not less than thirty feet from said magazine or storehouse, to contain not more than five hundred pounds of high explosives at any one time."

, A communication was received from Company, August 24, stating that matter of removal had been under advisement and in a short time magazine and contents would be removed to a place of safety. Some time later the Inspector found, on further investigation, that Company had complied with order.

June 29, 1896, an inspection was made of a nitro-glycerine storage place owned by the Ohio and Indiana Torpedo Company, J. H. Bogart, manager, located two miles west of St. Mary's, Mercer county, and on July 11 the following order was issued:

"Order No. 12.—Remove nitro-glycerine to a place of safety, to be not less than one hundred and sixty rods from any public building or private dwelling, highway or railroad, magazine or storehouse to be constructed of brick with iron doors, the roof to be of metal of some character, the whole to be fire-proof and heated by hot water only, heating apparatus to be not less than thirty feet from magazine or storehouse and the magazine or storehouse to contain not more than five hundred pounds of high explosives at any time."

Some time after order was issued the Inspector made further investigation and found that the company had conformed to order.

July 25, 1896, an inspection was made of a powder magazine owned by The Harper and Cosgrove Company, Zanesville, located about two miles from city, near the C.S.& H.R.R. tracks and round house, and the Inspector believing the place of storage hazardous, caused the following order to be issued from Department headquarters on July 23:

"Order No. 13.—Remove explosives to a place of safety, such place to be not less than one hundred and sixty rods from any public or private building, highway or railroad, and place same in a magazine to be constructed of iron, or frame covered with iron, wooden doors covered with metal and metal roof of some character, whole to be fire-proof, and if used for the storage of nitro-glycerine and necessary to be heated, hot water only to be used for heating purposes, heating apparatus to be not less than thirty feet from the magazine."

Communication was received by department from company on August 12 saying were removing powder on that date. On investigation by the Inspector it was found that order had been strictly carried out.

It will be noticed that the Department has been very successful in having orders carried out, as every order issued has been obeyed.

## INTERNATIONAL ASSOCIATION OF FACTORY INSPECTORS.

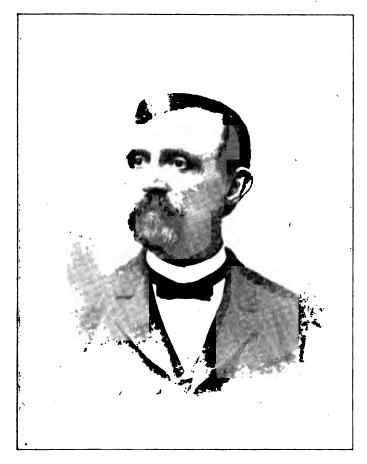
The tenth annual session of the International Association of Factory Inspectors of North America was held in the city of Toronto, Ontario, Canada, September 1-3, 1896, with the following states represented: Massachusetts, New York, New Jersey, Ohio, Illinois, Michigan, Con-

necticut, Rhode Island, Minnesota, Main, Missouri, Province of Ontario and Province of Quebec. The convention was welcomed on the part of the Province by Hon. John Dryden, Minister of Agriculture, and on the part of the city by Alderman Scott.

The convention was one of interest, and, perhaps, in an educational point of view, exceeded any former gathering. Many interesting papers in relation to factory inspection were read and discussed, thus causing an interchange of views on the different subjects, proving beneficial to all those present. Through this Association factory inspection has been inaugrated in many States since its first session ten years ago, and its valuable work should be commended and encouraged by each state having such inspection by urging a full attendance at each convention. The next convention will be held at Detroit, Mich.

## COMPLIMENTS.

I desire to return my thanks to the members of the Seventy-second General Assembly for their prompt consideration of the recommendations contained in my annual report for the enactment of new laws and amendments made to old, also for appropriations made so that the work of the Department could be prosecuted without impediment. I cheerfully acknowledge the valuable and untiring assistance of the District Inspectors, who have so ably performed their duties pretaining to their office; to Mr. John F. Woods, Miss Young and Miss Nolze, clerks in the office, I extend my thanks for efficient services in the line of their several duties. Capt. E. M. Slack continues in the responsible position of Chief Clerk, for which he is particularly well fitted. His courteous and gentlemanly treatment to all those who have business with the office has made a host of friends for the Department. For this I desire to thank him and for the interest he has taken in the work and for the kindness he has shown me.



WILLIAM R. MATTHEWS.

## OBITUARY.

During the past year death has invaded our ranks and I regret exceedingly to announce the demise of William R. Matthews, Deputy Inspector for the Seventh District. The first death while in service since the Department was created.

January 27, 1896, a telegram was received by the Department of Workshops and Factories, announcing the death of Inspector William R. Matthews, located in Zanesville, Ohio. The announcement came not unexpected, as Mr. Matthews had been a sufferer for many months of throat and lung trouble of a serious nature, from which recovery was impossible.

Mr. Matthews was born in South Wales, Sept. 27, 1845, making him on the date of his death fifty years and four months. In 1867, he came to America and stopped at Niles, Trumbull county, Ohio, where he

was engaged as an iron worker. After working for some time at Niles he wended his way to Newark, and later to Akron, and in 1876 settled at Zanesville, where he obtained employment with the Ohio Iron Co., serving as foreman of the bar mill for almost fourteen years, and until the unfortunate strike in 1890, when the works closed down. Mr. Matthews had championed the cause and rights of labor for years though not an agitator, and in consequence joined his fellow workmen when they ceased work and walked out of the mill.

In May, 1892, Mr. Matthews was appointed District Inspector of Workshops and Factories for the Seventh District, in which position he was serving up to the date of his death. Although almost incapacitated from doing duty at times during 1895, his ambition to be employed would not allow him to be idle, being buoyed by the hope that activity would cast off the thoughts of being ill and might lead to recovery, but at last he found that his strength was failing and the time had come when he must quit work, though but a few weeks before dissolution came. Mr. Matthews was a faithful and careful Inspector, and his judgment could always be relied on. He was much liked by his fellow Inspectors and every member of the department, and his loss is keenly felt. He was a faithful and kind husband and father and leaves to mourn his departure a wife and five children, who will most miss him.

Mr. Matthews was a member of Mechanics Lodge I. O. O. F. and Howard Encampment of the same order, also Star Lodge Knights of Honor and Valley Ruling Fraternal Mystic Circle. He was followed to his last resting place, Woodlawn Cemetery, by the above named organizations and a large concourse of friends, together with a detail of six Inspectors to represent the Department of Workshops and Factories. May he rest in peace.

J. W. KNAUB, Chief Inspector.



## STATISTICAL TABLES

OF

Factories and Mercantile Establishments Inspected

AND

CHANGES ORDERED.

# TABLE I-FIRST DISTRICT-FACTORIES INSPECTED.

## CUYAHOGA COUNTY.

			N I I	Number em	<u>.</u>		embjokeq	
	Location.	Business or kind of manu- facturing.	Males.	Females.	Ainors.		Total number	Total number How often are
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nik	53 Hill street	Pants Cigars	4 W	<b>4.</b> ~	-			Irregular
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## TABLE 1-FIRST DISTRICT-FACTORIES INSPECTED-Continued.

## CUYAHOGA COUNTY-Continued.

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, <del></del>	Name of firm and city, town or village.	CLEVELAND - Continued.	Ohio Foundry C	Favorite Desk and Seating Co		Cleveland Foundry Co	Cleveland Chewing Gum Co	Cleveland Pearl Button Co		Kelly Manufacturing Co.		Bride (garment factory)	Los Bendan Embradem Co	:			Cleveland Armature Works	Root & McBride	Cade Manufactuelus Co.	Union Rolling Mill Co. (Emma blast furnace)	River Machine & Boller Co.	John Anisfield & Co	Young & Fulton Lumber Co.	O. O. Dubroy & Co.	Cleveland Dental Manufacturing Co.	Nungesser Manufacturing Co.	Hoyt & Co	Rastriner & Denainer
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TABLE I-FIRST DISTRICT-FACTORIES INSPECTED-Continued.

## CUYAHOGA COUNTY-Continued.

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\*Factory closed.

TABLE I-FIRST DISTRICT-FACTORIES INSPECTED-Concluded.

CUYAHJGA COUNTY-Concluded.

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\*Business suspended.

## FIRST DISTRICT-FACTORIES.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 1—Postal Cigar Co. (Cleveland), January 4. 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 4—Standard Oil Co.—Compound Piant No. 2 (Cleveland), January 4, 1896—Place substantial hand-railing at end of retorts on runway; suspend a board or sheet iron guard from pipe under long retort, between pulleys and belts and stairway, so that persons passing between stairs and pulleys will not come in contact there with. Compiled.
- No. 8—Nathan Peltz (Cleveland), January 8, 1896—Provide better ventilation on second floor by opening double doors between front and rear rooms, or by remeving partition between rooms, or providing mechanical appliance to secure thorough ventilation; would suggest that you put disc fan in wall; remove all refuse, etc., from floors, stairs and hallway, and keep your premises in a better sanitary condition. Compiled.
- No. 9—John Holecek (Cleveland), January 8, 1896—Keep a correct record of all minors in your employ under eighteen years of age. Complied.
- No. 10—H. Pilet (Cleveland), January 10, 1896—Remove Jennie Heinick, under fourteen years of age, as per the law to prevent the engagement of minors under fourteen years, during the time they are required by law to attend school; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Complied.
- No. 14—I. Brudno (Cleveland), January 28, 1896—Keep a correct and accurate record of all minors in your employ under the age of eighteen years, Compiled.
- No. 20—Max Evenchick (Cleveland), January 28, 1896—Comply with section 2 of an act to correct abuses existing in the way of retaining wages under various pretexts from minors, and to prevent them from being deprived of their earnings by unscrupulous employers. Compiled.
- No. 23—Specht & Fischgrund (Cleveland), January 28, 1896—Case in shafting operating under sewing-machine tables. Gone out of business.
- No. 24—Buckeye Electric Co. (Cleveland), January 28, 1896—properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to this department, and in the future report all accidents to this department as they occur. Compiled.
- No. 29—T. P. Fey (Cleveland), January 28, 1896—Provide sufficient room between shirt ironing machines to allow employes to pass between them without clothing coming in contact with belts and pulleys: provide a casing in front of pulley of shirt bosom mangle where key projects; all machines must be located so that employes will not be compelled to come in contact with any belt or moving part thereof. Not reported as compiled.
- No. 30—J. W. Vanderwerf (Cleveland), January 28, 1896—Provide an exhaust system to carry dust away from dust-creating machinery; keep guards for rip-saw and jointers in use. Complied.



- No. 33 Berner-Mayer Co. (Cleveland), February 11, 1896—Place a substantial casing or railing around fly-wheel of engine; provide an exhaust system to carry away dust from buffing and polishing wheels. Complied.
- No. 84—Turner Worsted Co. (Cleveland), February 11, 1896—Keep a correct record of all minors in your employ under the age of eignteen years in picking department. Complied.
- No. 35—Turner Worsted Co. (Cleveland), February 11, 1896—Keep a correct record of all minors in your employ under the age of eighteen years in yarn department. Compiled.
- No. 87—Turner Worsted Co. (Cleveland). February 11, 1896—Keep a correct record of all minors in your employ under the age of eighteen years; allow no minor under the age of sixteen to operate or assist to operate elevator, as per the law to prevent the engagemen of children under the age of sixteen at any employment whereby their lives and limbs may be endangered in weaving department. Compiled.
- No. 39—Turner Worsted Co. (Cleveland), February 11, 1896—Provide casing over pulley operating on west side of wool dryer; keep a correct record of all minors in your employ under the age of eighteen years in carding and combing department. Compiled.
- No. 40—Turner Worsted Co. (Cleveland), February 11, 1696—Case in belts and pulleys on ends of machines at passageways, where employes pass from front to rear of machines; keep a correct record of all minors in your employ under the age of eighteen years in drawing and spinning department. Compiled.
- No. 53—M. T. Silver & Co. (Cleveland), February 29, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Compiled.
- No. 54—A. Welkin & Co. (Cleveland), February 29, 1896.—Provide a casing in front of all shafting under sewing-machine tables; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Complied.
- No. 56—Sunshine, Kohn & Kaufman (Cleveland), February 29, 1896.—Keep the outlet pipe of wash-bowl free of obstructions; thoroughly disinfect closets and keep them in good sanitary condition at all times; provide some means for destroying roaches in women's dressing-room; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 58—Van Dorn Iron Works (Cleveland), February 29, 1896.—Provide an exhaust system to carry dust from emery wheels; saw-guard for rip-saw and keep same in use; provide adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives. allowing only sufficient space between guard and gauge to admit material being worked; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to this department, and in the future report all accidents as they occur; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 60—Peerless Manufacturing Co.—Bicycle Department—(Cleveland), February 29, 1896...Remove all projecting set-screws from shafting and substitute with headless screws; provide an exhaust system to carry dust from polishing and buffing wheels; allow no minor under the age of sixteen years to operate or assist to operate elevator, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; allow no minor to be employed more than ten hours in any one day or night; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors in bicycle department. Complied.
- No. 61—Peerless Manufacturing Co.—Wringer Department—(Cleveland), February 29, 1896.—Provide a substantial casing or railing on both sides of driving belt of engine in engine-room; saw-guard for rip-saw on second floor, and keep same in use; examine carefully and frequently hoist rope of elevator, as many strands were found to be defective; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Compiled.



- No. 62—Cleveland Fibre Interlining Co. (Cleveland), March 26, 1896.—Place guard on gearing inside of bearings of rolls mashing inward; back of rolls place a receiving rest six inches wide and full length of rolls to prevent the employe receiving the cloth coming in contact with roll; allow no minor under sixteen years of age to operate or assist in operating dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; allow no minor to be employed longer than ten hours in any one day or sixty hours in any one week; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed and keep a record of all such minors. Complied.
- No. 71—A. Raber (Cleveland), March 31, 1896.—Connect all dust-oreating machinery with exhaust system: on first floor, provide an adjustable cover for jointer cover to be fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; saw-guard for rip-saw and keep same in use; on second floor, provide an adjustable cover for jointer, cover to be fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; provide saw-guards for rip-saws and keep same in use. Not reported as compiled.
- No. 75—H. Frank Steel Range Co. (Cleveland), April 18, 1896—Cover or substitute with headless screws all projecting set screws in shafting. Compiled
- No. 76—Cleveland School Furniture Co. (Cleveland), April 13, 1896—Case in all countershafts, belts and pulleys operating near the floor. Complied.
- No. 78—United Salt 'Co. (Cleveland), April 13, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to this department, and in future report all accidents to this department as they occur. Complied.
- No. 84—Cleveland Veneered Door Co. (Cleveland), April 13, 1896—Case in all countershafts, belts and pulleys operating near the floor; provide a substantial casing or railing around fly and band-wheels of engine; allow no minor under the age of sixteen years to be employed at dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Not reported as compiled.
- No. 86—Ohio Foundry Co. (Cleveland). April 18, 1896—Place a casing on side of fan where belts run, casing to be the width of the fan and raised high enough to cover the belt operating on small pulley of fan; provide a substantial casing or railing around flywheel pit; remove set-sorews projecting from collar on large band-wheel of fan; provide saw-guard for rip-saw and keep same in use. Compiled.
- No. 88—Standard Foundry Co. (Cleveland), April 18, 1896—Cover or countersink all projecting setsorews in shafting; provide casing or railing around band-wheel of tumblers, where same have no other protection; substantial railing to extend along side of belt operating blower in engine room, railing to extend around the rear of band-wheel so as to make it safe for passage of engineer between belt and belt of governor; provide saw-guard for rip-saw and keep same in use; wrought iron hoods or covers for emery-wheels, hoods to cover as much of the wheel as your work will admit, and to be securely fastened to frame work of wheel, so that in case of wheel bursting, the cover will prevent, to some extent, pieces flying; where you cannot use covers, I would suggest that you provide washers, washers to cover the surface, except two inches of the diameter of the wheel, and to be placed on each side of the wheel; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in the future report all accidents as they occur. Compiled.

- No 89—Aurora Vapor Stove Co. (Cleveland), April 18, 1896—Provide substantial casing or railing around fly and band-wheels of engine and cover belt where it runs under band-wheel; properly fill out accident blanks and report accidents that happened to two of your employes some time since, forward same to department and in future report all accidents as they occur; permit no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Complied.
- No. 90—Cleveland Foundry Co. (Cleveland., April 13, 1896—Attach hood connections for each wheel to exhaust system in grinding and polishing department; cover or countersink all projecting set-screws in shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Compiled.
- No. 91—Cleveland Chewing Gum Co. (Cleveland), April 13, 1896—Cover or countersink all projecting set-screws in over-head shafting; keep passageway to fire-escape windows clear of obstructions at all times; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 92—Cleveland Pearl Button Co. (Cleveland', April 18, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record all such minors. Compiled.
- No. 97—Root & McBride.—Garment Factory (Cleveland), April 29, 1896—Case in or put a protection in front of all shafting operating under sewing-machine tables; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors in Garment Factory. Partial compliance.
- No. 28—Root & McBride—Bag Factory (Cleveland), April 29, 1896—Provide a substantial casing around fly and band-wheels of engine in basement; cover small gearing on all machinery where the same mashes inward; cover all projecting set-screws in shafting or substitute with headless screws; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors in Bag Factory. Complied.
- No. 100—J. A. Cochran (Cleveland), April 29, 1896—Cover all projecting set-screws or substitute with headless screws; provide an exhaust system to carry away dust from polishing buffing and grinding machines. Complied.
- No. 108—C. F. Hunger Co. (Cleveland), May 6, 1896—Cover all projecting set-screws or substitute with headless screws; provide an exhaust system to carry away dust from all emery, polishing, buffing wheels and belts. Compiled
- No. 104-Cleveland Armature Works (Cleveland), May 6. 1896--Case in belt where operating through floor; cover all projecting set-serews or substitute with headless screws. Compiled.
- No. 105—Root & McBride (Cleveland), May 6, 1896—Provide a casing in front of all shafting operating under sewing-machine tables. Complied.
- No. 107—Cady Maufacturing Co. (Cleveland). May 6, 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 108--Union Rolling Mill Co. -Blast Furnace (Cleveland), July 4, 1896--Provide a substantial casing or railing around tank in yard used as a receiver for exhaust. Complied.
- No. 110--John Anisfiela & Co. (Cleveland), July 22, 1896—Case in shafting operating under sewing-machine tables; cover small motor and belting under outting table; keep passage way to fire-escape clear of obstructions at all times; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Partially complied.

- No. 111—Young & Fulton Lumber Co. (Cleveland), July 22, 1896—Provide a substantial casing or railing around fly and band-wheels of engine; case in all countershafts, belts and pulleys operating near floor: cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years in each room where such minors are employed, and keep a record of all such minors. Complied.
- No. 112-O. O. Dubroy & Co. (Cleveland), July 22, 1896—Provide an exhaust system to carry away dust and sand from sanding machine; saw-guards for rip-saws and keep same in use; adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Complied.
- No. 118--H. Beckenbach & Sons (Cleveland), July 28, 18-6--Allow no minor under the age of sixteen years to operate or assist to opperate dangerous machinery, as per the law to prevent the engagement of minors at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed and keep a record of all such minors. Compiled.
- No. 115—Cleveland Dental Manufacturing Co. (Cleveland), July 28. 1896--Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Compiled.
- No. 118—Kastriner & Shafiner (Cleveland), July 28, 1896—Case in all shafting operating under sewing-machine tables: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years. in each room where such minors are employed, and keep a record of all such minors. Compiled.
- No. 119—Prinz & Bieberman (Cleveland), July 28, 1896—Allowing no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors Compiled.
- No. 122—F. Pollard (Cleveland), July 28, 1896—Case in all shafting operating under sewing-machine tables; allow no minor under sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years to be engaged at any employment whereby their lives and limbs may be endangered, etc. Compiled.
- No. 128—Union Electric Co (Cleveland), July 28, 1896—Remove all combustible material from under or near the stairways; post-notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Compiled
- No. 125-C. C. Julier (Cleveland), July 28, 1896.—Cover or countersink all projecting set-screws in collars on shafting; provide a substantial easing around fly and band wheels of engine. Complied.
- No 126—Ohio Baking Co. (Cleveland). July 28, 1896.—Provide a substantial casing or railing around engine operating elevator; cover or countersink all projecting set-screws in collars on shafting; thoroughly cleanse and disinfect water-closet and keep same in good sanitary condition at all times; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Compiled.
- No. 127—Co-operative Stove Co. (Cleveland), August 7, 1896.—Allow no minor under the age of sixteen years to operate or assist to operate elevator, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all auch minors. Compiled.
- No. 128—Spero & Levy (Cleveland). August 7, 1896.—Remove all combustible material from under or near stairways. Compiled.



- No. 129—S. Kohn (Cleveland), August 7, 1896.—Remove all combustible material from under or near stairways. Complied.
- No. 130—G. L. & C. T. Heisel (Cleveland), August 7, 1896.—Cover or countersink all projecting setscrews in collars or shefting; remove all combustible material from under or near stairways; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 181—Sachs & Kirkpatrick (Cleveland), August 7, 1896.—Cover or countersink all projecting set-screws in collars on shafting; keep rear of shop better lighted; remove rubbish and other combustible material from under or near stairways. Compiled.
- No. 133—Blumberg & Wulf (Cleveland), August 7, 1896.—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 136—Morreau Gas and Electric Light Fixture Co. (Cleveland). August 10, 1896.—Cover or countersink all projecting set-screws in collars on shafting; provide an exhaust system to carry away dust from emery, polishing and buffing-wheels; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 187—Grossman Paper Box Co. (Cleveland), August 7, 1896.—Cover or countersink all projecting set-screws in collars on shafting; remove all combustible material from under or near stairway; clear passageway leading to fire-escape of obstructions; allow no minor under the age of sixteen years to operate or assist to operate dangerous machinery or elevator, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc. "Complied.
- No. 138—Standard Oil Co.--Candle Works (Cleveland), August 12, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 189—Cleveland Faucet Co. (Cleveland), August 12, 1896.—Cover or countersink all projecting set-screws in collars on shafting in faucet department. Compiled.
- No. 140—Cleveland Faucet Co. (Cleveland), August 12, 1896.—Keep saw-guard properly adjusted and in use, also cover for jointer; cover or countersink all projecting set-screws in collars on shafting in ice box and cooler department. Not reported as compiled.
- No. 148—Cleveland Trunk Co. (Cleveland), August 12, 1896.—Keep passageway clear of obstructions at all times. Complied.
- No. 144—Cleveland Book Bindery (Cleveland), August 12, 1896—Provide a substantial casing or railing around electric motor; allow no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc. Complied.
- No. 146—City Foundry Co. No. 2 (Cleveland), August 12. 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 147—Ohio Steam Heating and Manufacturing Co. (Cleveland), August 12, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in all exposed belts operating through floor; case in all countershafts, belts and pulleys operating near floor. Complied
- No. 181—Cleveland Galvanizing Works (Cleveland), August 12, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in all countershafts, beits and pulleys operating near floor; allow no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially compiled.

- No. 152—Ohio Laundry Co. (Cleveland). August 12, 1896—Cover or countersink all projecting setscrews in collars on shafting; allow no minor under the age of sixteen years to operate or asist to operate any laundry machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed and keep a record of all such minors. Compiled.
- No. 158—Universal Steam Cleaning and Dying Co. (Cleveland), August 12, 1896—Provide a substantial casing or railing around fly and band-wheels of engine. Complied.
- No. 154—Hoffman Bicycle Co. (Cleveland), August 26, 1896—Provide a substantial casing or railing around fly and band-wheels of both engines; cover or countersink all projecting setscrews in collars on shafting; case in all shafting operating near floor: provide an exhaust system to carry away dust from polishing, buffing and emery-wheels; allow no minor under the age of sixteen years to operate or assist so operate dangerous machinery, as per the law to prevent the engagement of minors whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. All complied except exhaust system; under construction.
- No. 155—Cleveland Stamping and Tool Co. (Cleveland), August 26, 1896—Provide an exhaust system to carry away dust from emery-wheels; case in all countershafting, belts and pulleys operating near floor; allow no minor under the age of sixteen years to operate or assist to operate stamping machines, as per the law to pervent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed and keep a record of all such minors. Complied.
- No. 156—S. L. Pierce & Co. (Cleveland), August 26, 1896—Cover or countersink all projecting setscrews in collars on shafting; case in all countershafting, belts and pulleys operating near floor; allow no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors at any employment whereby their lives and limbs may be endangered, etc., post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed and keep a record of all such minors. Compiled.
- No. 159—Cleveland Gas Fixture and Specialty Co. (Cleveland), August 26 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 160—Cleveland Electric Manufacturing Co. (Cleveland), August 28, 1896—Remove all combustible material from under or near stairway; allow no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 161.—W. H. Garlock & Co. (Cleveland), August 26, 1896—Cover or countersink all projecting set-screws in collars on shafting; thoroughly cleanse and disinfect water-closet on first floor and keep same in a good sanitary condition at all times; allow no minor under the age of sixteen years to operate or assist to operate laundry machinery, as per the law to prevent the engagement of minors at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially complied.



- No. 162—Standard Iron and Wire Co (Cleveland), September 1, 1896.—Provide a substantial casing or railing around fly and band-whee of engine; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a correct record of all such minors Compiled.
- No. 163-C. Kuhlman 'Cleveland'), September 1, 1896—Place a casing in front of bottom wheels of all band-saws; provide a saw-guard for rip-saw and keep same in use: an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit of material being worked; case in all countershafts, belts and pulleys operating near floor. Complied.
- No. 164—Forest City Laundry Co. (Cleveland), September 1, 1896—Case in belt operating wringer; cover or countersink all projecting set-screws in collars on shatting; place a casing in front of fly-wheel of engine, as instructed by the inspector; allow no minor under the age of sixteen to operate or assist in operating laundry machinery, as per the law to prevent the engagement of minors under the age of sixteen years at employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partial compliance.
- No. 165—Northern Ohio Manufacturing and Refinishing Co. (Cleveland), September, 1896—Cover or countersink all projecting set-screws in collars on shafting; allow no minor under the age of sixteen years to operate or assist in operating elevator, as per the law to prevent the engagement of minors under the age of sixteen years at employment whereby their lives and limbs may be endangered etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partial compliance.
- No. 166—S. Ferguson & Son (Cleveland), September 1, 1896—Provide belt-shifters for shift-belt of collar and cuff machine; case in belt operating wringer; properly fill out accident blank and report accident that happened to one of your employes some time since, and in future report all accidents to this department as they occur. Not reported as complied.
- No. 167—Cleveland Laundry Machine Co. Cleveland), September 1, 1896—Provide a casing in front of lower wheel of band-saw; saw-guard for rip-saw and keep same in use. Complied.
- No. 168—Charles Lezius (Cleveland). September 1, 1896—Post notices of the hours of labor required a day of minors in your employ, in each room where employed, under the age of eighteen years, and keep a record of all such minors. Compiled.
- No. 169—German Press and Plate Co. (Cleveland), September 1, 1896—Provide a protection around gear-wheel of shaving machine; post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 170—Pfaffman & Co. (Cleveland), September 2, 1896—Case in fly-wheel on bread-roller machine; case in all countershafts, belts and pulleys operating near floor. Compiled.
- No. 173—German Consolidated Newspaper Co. (Cleveland), September 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 174—Cleveland Desk Co. (Cleveland), September 2, 1896—Provide a substantial casing or railing around power motor; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between cover and gauge to admit of material being worked. Complied.
- No. 175—Webber & Kluever (Cleveland), September 2, 1896—Allow no minor under the age of sixteen years to operate or assist in operating circular saw, sandpaper machine or any other dangerous machinery, as per the law to prevent the engagement of minors at employment whereby their lives and limbs may be endangered, etc. Compiled.

- No. 176—Hain & Gunther (Cleveland), September 2, 1896—Post notices of the hours of labor required a day of minors under eighteen years of age in your employ, in each room where employed and keep a record of all such minors. Complied.
- No. 186—Hughes Steam Pump Co. (Cleveland), September 2, 1896—Cover or countersink all projecting bet-screws in collars on shafting: provide an adjustable cover for jointer, fastered to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Compiled.
- No. 187—City Steel Range Co. (Cleveland), September 15. 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 188—H. A. Boesger & Co. (Cleveland), September 15, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 191—Lennox Chemical Co. (Cleveland), September 15, 1896—Provide a substantial casing or railing around fly and band-wheel of engine; a substantial railing around openings in floor over tanks; all shift-belts with belt-shifters. Complied.
- No. 198—Bodifield Belting Co. (Cleveland). September 15, 1893—Cover or countersink all project ing set-screws in collars on shafting; provide a casing in front of all exposed belting operating through floor. Complied.
- No. 194—French Delicacy Co. (Cleveland), September 15, 1896—Case in all countershafts, belts and pulleys operating near floor. Compiled.
- No. 195—E. A. Kline & Co. (Cieveland), September 24, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 199—Chafer & Becker (Cleveland), September 24, 1896—Cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.
- No. 200—Edmonds Elevator Co. (Cleveland), September 24. 1896—Cover or countersink all projecting set-screws in collars on shafting; provide automatic (self-closing) elevator gates at elevator openings on each floor; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 201—Wilson Cigar Box Factory Cleveland), September 24, 1896—Cover or countersink all projecting set-screws in collarson shafting; provide substantial casing or railing around electric motor; allow no minor under the age of sixteen years to operate or assist to operate dangerous machinery, as per the law to prevent the engagement of minors at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed and keep a record of all such minors. Complied.
- No. 203-Fraser Machine Works (Cleveland), September 24, 1896-Provide substantial casing or railing around electric motor. Complied.
- No. 204 -Enterprise Brass Co., (Cleveland), September 24, 1896 -Post notices of the hours of labor required a day of minors in your employ, under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 205—Buckeye Novelty Co. (Cleveland), September 24, 1896—Case in driving belt of engine and all exposed belts operating through the floor; cover or countersink all projecting set-serews in collars on shafting. Complied.
- No. 208—Forest City Paint and Varnish Co. (Cleveland), September 24, 1896—Cover or counter sink all projecting set-screws in collars on shafting. Complied.
- No. 211—Cleveland Co-operative Stove Co. (Cleveland), October 13, 1896—Provide an exhaust system to carry away dust from all emery, polishing and buffing wheels. Complied.



- No. 212—Peerless Wringer and Bicycle Co., (Cleveland). October 13, 1896—Provide an exhaust system to carry away dust from emery, polishing and buffing wheels. Complied.
- No. 213—Glauber Brass Manufacturing Co. (Cleveland), October 26, 1896—Cover or countersink all projecting set-screws in collars on shafting; provide a substantial casing or railing around fly and band-wheels of engine; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 214—Henry Schauer (Cleveland), October 28, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 215—H. Steffen (Cleveland), October 28, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 217—August Krueger (Cleveland), October 28,1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 218—German Publishing House, Reform Church U. S (Cleveland), October 28, 1896—Case in all exposed belting operating through floor; cover or countersink all projecting setserew in collars on shafting; post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 221—G. A. Tinnerman Steel Range Co. (Cleveland), October 28, 1896—Case in all exposed belting operating through floor; provide a substantial casing or railing around fly and band-wheels of engine; cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 223-J. Kopacka (Cleveland), October 28, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 224—F. J. Trunecek (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 225—J. Marek (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 226-J. Dunoesky (Cleveland), November 2, 1896-Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 228—J. Matuschka (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 229—B. Spiracus (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 231—F. Kozaka (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 232—F. Manak (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.



- No. 235—V. Macan (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Not reported as complied.
- No. 236—Northern Ohio Cigar Co. (Cleveland). November 2, 1896—Provide a substantial railing around motor; keep a complete record of all minors in your employ under the age of eighteen years. Complied.
- No. 237—F. Monak (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 238—J. Kozak (Cleveland, November 2, 1896—Post notices of the hours of labor required s day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 241—A. Vavinska (Cleveland), November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 243—Scheier Furniture Co. (Cieveland), November 11, 1896—Allow no minor under sixteen years of age to operate or assist to operate elevator, as per the law to prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 244—Standard Cigar and Tobacco Co. (Cleveland), November 11, 1896—Case in all belts operating through floor; keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 245—Williams Publishing and Electric Lighting Co. (Cleveland), November 11, 1896—Case in main belt operating through floor; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 248—Central Knitting Co. (Cleveland), November 11, 1896—Case in all belts operating through floor, and belt operating spindle. Compiled
- No. 249—Forest City Saddlery Co (Cleveland), November 11, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 250—Avery Stamping Co. (Cleveland), November 11, 1896—Provide an exhaust system to carry away dust from emery, buffing and polishing wheels. Not reported as compiled.
- No. 251—A. Kalta (Cleveland), November 11, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 258—E. Burant (Cleveland), November 11, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 254—J. Bartunek (Cleveland), November 11, 1896--Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 256—Enterprise Printing Co. (Cleveland), November 14, 1896—Cover or countersink all projecting set-screws in collars on shafting; cover or cut off all keys projecting beyond fly-wheels of presses; case in all exposed belting operating through floor, casing to be at least four feet high; post notices of the hours of labor required a day of minors in your employ: under the age of eighteen years, in each room where such minors are employed, and keep a record of all such minors. Partial compliance



- No. 257—National Brass Manufacturing Co. (Cleveland), November 14, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 259—S. Trottner & Co. (Cleveland, November 14, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied
- No. 260--Cleveland Steam Laundry Co. (Cleveland), November 14, 1896—Cover or countersink all projecting set-screws in collars on shafting; keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 261--Cleveland Paper Box Co. (Cleveland), November 14, 1896--Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.

# TABLE II—SECOND DISTRICT—FACTORIES INSPECTED.

## ASHTABULA COUNTY.

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TABLE II—SECOND DISTRICT—FACTORIES INSPECTED—Continued

# ASHTABULA COUNTY-Continued.

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# TABLE II-SECOND DISTRICT-FACTORIES INSPECTED-Continued.

## MAHONING COUNTY—Concluded.

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Same washed metal dept.)	МЕВГИА	25.6	SKVILIR.  I. M. Overholt M. D. Youghlin C. L. Watson WADSWORTH.	J. S. Oberholtzer John A. Barnes Meanord Insulator Co. Wadsworth Milling Co. Wadsworth Salt Co. Wadsworth Salt Co.
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Temporarily closed | Total number of employes given on blank 100.

TABLE II—SECOND DISTRICT—FACTORIES INSPECTED—Continued.

## PORTAGE COUNTY-Concluded

Number employed.	Location. Business and kind of manu-facturing.  Anales. Males.		Hardware specialties, etc.   90   1   20   20   20   20   20   20   20	Palis and spikes, etc. 20		Electricity and machinery 1 Iron castings and machinery 10 Iron castings and lumber 10 Iron Palls Tables 10 Iron Palls Iron Palls Iron Palls Iron Palls Iron Palls Iron Palls Iron Palls Iron Iron Iron Iron Iron Iron Iron Iron	SUMMIT COUNTY.		(Mrs. Phillips) Rear of Empire House
	Name of firm and city, town or village.	RAVENNA.	A. C. Williams Astron. Barreel. Ravenna Gas and Electric Light Co. Mill Street. Mishler Brothers. S. Sycamore stree Gaverna Boiler Works. Note & Co. Note & White. Nicola & White. Trouter & Gambell. Trouter & Gambell. Trouter & Co. Truner Worsted Co.  MANTUA.	108 Hine & Cook	GARRETISVILLE.	110 Payne Electric Co. 111 Garrettsville Manufac, Foundry & Mach. Co. 112 Hosley & Co. 113 Sherman Buroe. 114 Garrettsville Table Factory. 114 Garrettsville Table Factory.		AKRON.	187   Empire House Laundry, (Mrs. Phillips) Rear of Empl

### WAYNE COUNTY.

	INSTRUCTOR OF WO	RESHOTS AND	FACTURIES.	
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	Laundry  Cig saddes, etc.  Bent felloes  Laundrying.  Flanking mill, etc.  Flour and feed.  Machine shop  Brick.  Laundrying.  Plances leather  Fleter oil in the state of the	Sash, doors and blinds	Furniture, etc	Planing mill
	20 E. Liberty street  Henry and Beaver streets  Olumbus avenue.  M. E. Liberty streets.  E. Liberty street  S. However street  S. How of the street  E. Worth street  E. Worth street  E. Worth street  E. Worth street  E. Worth street  E. Worth street  E. Worth street  E. Worth street	Near depot	South of Salem	Salt Creek Township. Crawford street.
Wooster.	C. W. Ki-Chung-Will-Ki Standard Conch Pad Co Wooster Bending Works Thompson & Davis Steam Laundry C. H. Clark Plant & Tray B. Barrett's Some Wooster Steam Laundry Wooster Steam Laundry Boston Planc Co D. C. Curry & Co Wooster Silding Bind Co E. Thome Wooster Filettic Co E. Thome H. J. Heinze I andes & Smoke I shor & Son Children's Home Laundry	ORRVILLE. Orrville Planing Mill Co Orrville Heat and Power Co Orrville Waterworks. Orrville Matchine Co Orrville Matchine Co A. J. T. Schantz.	Samuel Ewing Greety & Co. Samuel Ewing Kupnert & Co. Fupert & Copley.	E. T. Firestone
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\*Closed indefinitely.

TABLE, II—SECOND DISTRICT—FACTORIES INSPECTED—Concluded.

WAYNE COUNTY-Concluded.

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Number employed.	Females		- !		83 1-		
Nux	Males.		ı,		51.05.5		80
	Busines or kind of manu- facturing.		Flour		Flour and feed		Flour and feed
	Location.				noe CO.		
	Names of firms and city, town or village.	APPLE CREEK.	Scott & Munson	CRESTON.	158   Creston Milling and Produce Co.	STERLING.	D. I Slemons
	Number.		151		\$2 52 72 72 \$2 52 72 72		192

\*Factory closed indefinitely.

### SECOND DISTRICT—FACTORIES.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 8—London Rubber Co. (Ashtabula), December 19, 1895—Cover or countersink all projecting set-screws in collars on shafting. Factory closed.
- No. 4—Bradley Manufeturing Co. (Ashtabula). December 19, 1895—Case in all exposed belts operating through floors. Compiled.
- No. 5-O. J. McNutt (Ashtabula), December 19, 1895—Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 6—George E. Williams (Ashtabula), December 19, 1895—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; a casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel; cover or countersink all projecting set-screw in collars on shafting; remove all oils, etc., from under or near stairs; properly fill out accident blanks and report all accidents that have happened in your establishment since November 15, 1895, and forward same to this department and in the future report all accidents as they occur. Compiled.
- No. 7—L. C. Newell (Ashtabula), December 19, 1895—Case in countershaft, belts and pulleys oper ating near floor. Complied
- No. 10—Ashtabula Tool Co. (Ashtabula), December 19, 1895—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 11—Taft & Dunn (Ashtabula), December 19, 1895—Provide a substantial casing or railing around fly and band-wheels of engine. Complied.
- No. 12—Troy Steam Laundry (Ashtabula), December 19, 1895—Cover or countersink all projecting set-screws in collars on shafting: provide a guard as directed by the inspector in front of wringer rolls; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to this department, and in the future report all accidents as they occur. Compiled.
- No. 18—S. I. Amidon & Co. (Ashtabula), December 19, 1895—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 15—Ashtabula Hide and Leather Co. (Ashtabula), December 19, 1895—Provide a substantial casing or railing around wheels of glassing jack, also at both splitting machines. by placing a board one and one-half by twelve inches, board to extend from floor to ceiling, in front of knives to catch them in case they should break: case in all exposed pulleys operating near floor, also fly and band-wheels of engine; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as complied.
- No. 20—Barber & Noyes (Ashtabula), January 2, 1896—Provide an exhaust system to carry away dust from emery-wheels; properly fill out accident blank and report accident that happened to one of your employes sometime since and forward same to this department, and in future report all accidents as they occur. Complied.



### EXECUTIVE DOCUMENTS.

- No. 22—E. E. Jones (Jefferson), January 2, 1896—Provide substantial casing or railing in front of belts and pulleys on rolls at passageways. Compiled.
- No. 23—S. Beach & Son (Jefferson), January 2, 1896—Provide substantial railing around main driving belt; case in all exposed belts operating through floor. Complied.
- No. 25—Record Maufacturing Co. (Conneaut), January 22, 1896—Do not allow employes to use broken or cracked cut-off saw, substitute with new one; cover or countersink all projecting set-screws in collars on shafting; provide better means of ventilation for pickling vats by placing hood-shaped cover over vats, with pipe connection to chimneys or smoke flues on outside of building, to carry away fumes. Compiled.
- No. 26—H. E. Pond & Son (Conneaut), January 22, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guardiand gauge to admit material being worked. Complied.
- No. 22—Wright & Heavens (Conneaut), January 22, 1896—Provide saw-guards for rip-saws and shaper-guards for wood-shapers and keep same in use at all times. Partially compiled.
- No. 29—Wm. Heyer (Conneaut), January 22, 1896—Provide a substantial casing or railing around fiy-wheel of engine. Complied.
- No. 30—Conneaut Electric Light Co. (Conneaut), January 22, 1896—Provide a substantial railing at the exposed side of elevated platform at boiler. Erecting new building; will comply when machinery is placed.
- No. 31—D. S. Klumph (Conneaut), January 22, 1896—Provide substantial casing or railing around fly-wheel of engine. Complied.
- No. 34—Goodrich, Cook & Co. (Geneva), February 5, 1896—Adjust saw-guard to rip-saw and keep same in use. Complied.
- No. 35—Geneva Cycle Co. (Geneva), February 5, 1896—Provide an exhaust system to carry away dust from emery-wheels. Complied.
- No. 36—Anderson & Son (Geneva), February 24, 1896—Case in all exposed belting operating through floor. Complied.
- No. 39—Geneva Electric Light Co. (Geneva), February 24, 1896—Provide a substantial railing around fly-wheel of engine, also around belt driving dynamo No. 2. Complied.
- No. 44.—Youngstown Car Manufacturing Co.—Car Shop Department—(Youngstown), March 10 1896—Provide a substantial caring or railing around pulleys of bolt-heading machine; cover gear-wheels at transfer table; properly fill out accident blank and report accident that happened to one of your employes some time sincetand forward same to department and in the future report all accidents as they occur. Compiled
- No. 47—American Tube and Iron Co. (Youngstown), March 6, 1896—Provide substantial handrallings on all elevated platforms as directed by the Inspector; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department and in the future report all accidents as they occur. Not reported as compiled.
- No. 48—Youngstown Lumber Co. (Youngstown), March 10, 1896—Provide shaper-guard for wood-shaper; repair cover for jointer and keep the same in position at all times when jointer is in operation; properly fill out accident blank and report accident that happened to George Beede and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 54—Mahoning Valley Iron Co. (Youngstown), March 25, 1896—Provide a substantial casing or railing around fly-wheel and crank of nall shears, also around plate mill shears; replace the railing at the southwest of fly-wheel of plate mill engine; in blacksmith department provide substantial casing or railing around balance wheel of hammer, also around fly-wheel of engine and fly-wheel of fan and ore crusher; a guard between each set of housing at all trains and allow no employe to remove them; replace the railing around fly-wheel operating saw and shears of sixteen inch mill; provide guard rail at each side of overhead trussels and substantial hand-railing on stairs leading to shafting; properly fill out accident blanks and report accidents that happened to six of your employes some time since and forward same to department and in future report all accidents as they occur. Not reported as compiled.

- No. 56—Pultney Foundry and Engineering Works (Youngstown), March 25, 1896—Provide an adjustable cover for jointer, fasten to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Not reported as compiled.
- No. 57—Youngstown Electric Light Co. (Youngstown), March 25, 1896—Provide a substantial railing from Brush dynamo to No. 1 engine, as instructed by the Inspector. Compiled.
- No. 58—Forsythe Pattern Works (Youngstown), March 25, 1896—Provide an adjustable cover for jointer, fasten to the surface plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in future report all accidents as they occur. Complied.
- No. 59—Hood & Sinclair Co. (Youngstown), March 25, 1896—Insist on your employes using covers for jointers, guards for wood-shapers and rip-saws at all times when guards can be used; properly rill out accident blank and report accident, that happened to one of your employes some time since, and forward same to department, and in future report all accidents as they occur. Complied.
- No. 61—Enterprise Boiler Co. (Youngstown', March 25, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 62—Fredonia Manufacturing Co. (Youngstown), March 30, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Not reported as compiled.
- No. 63—Heller Bros. Co. (Youngstown), March 30, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in the future report all accidents as as they occur. Complied.
- No. 65—William Tod & Co. (Youngstown), March 30, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer covering the unnecessary exposure of jointer-knives. allowing only sufficient space between guard and gauge to admit material being worked. Complied.
- No. 66—Lloyd-Booth Co. (Youngstown), March 30, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Compiled.
- No. 67—Hoffman Brothers & Cook (Youngstown), March 30, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; shaper-guard for wood-shaper and keep same in use; case in all belting operating through floor. Not reported as compiled.
- No. 70—Crystal Ice and Cold Storage Co. (Youngstown), March 30, 1896—Provide substantial stairway to over-head runway near boilers and place hand-railings at the ends and south side of runways. Not reported as complied.
- No. 78—A. S. Williams (Youngstown), March 30, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Not reported as complied.
- No. 74—George H. Dingley (Youngstown), March 30, 1896—Provide a substantial casing or railing around wheel of matching machine and planer; cover or countersink all projecting set-screws in hub of wheels of planer. Not reported as complied.
- No. 77—Youngstown Carriage and Wagon Co. (Youngstown), March 30, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; cover or countersink all projecting set-screws in collars on shafting. Not reported as compiled.



- No. 79—Brown-Bonnell Iron Co. (Youngstown), April 10, 1896—Cover hole where belt operates saw and provide an iron box around belt where it enters floor: instruct your boss rollers of the different mills to keep guards properly adjusted. Compiled.
- No. 87—Youngstown Pattern Works (Youngstown), April 29, 1896—Provide suitable seats for the use of female employes and permit the use of such seats at all times when such use will not interfere with the duties for which they are employed; thoroughly clean and disinfect water-closet and keep same in good sanitary condition. Not reported as complied.
- No. 90—Williams Bros. (Kent), July 29, 1896—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 91—Railway Speed Recorder Co (Kent), July 29. 1896—Cover or countersink all projecting set-screws in collars on shafting; suspend casing under main belt in engine room. Complied.
- No. 92—T. G. Parsons, (Kent), July 29, 1896—Case in all countershafts, belts and pulleys operating near floor. Complied.
- No. 93—Kent Light, Water and Power Co. (Kent), July 29, 1896—Provide substantial casing or railing around fly-wheel on alternating machine, also small pulley on machine driving blower; strengthen plates which support guard rails now in use. Complied.
- No. 94—Erie R. R. Car Shops (Kent), July 16 1896—Cover or countersink all projecting set-screws in collars on shafting; properly adjust saw-guards to rip-saws and keep same in use. Compiled.
- No. 95—Fisher Brothers (Kent), July 29, 1896—Provide substantial casing or railing around pulley on south side of engine; casing in front of bottom wheel of band-saw and suitable protection in front of top wheel to catch the saw in case it should break or slip off; provide saw-guard for rip-saw and keep same in use; provide adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Compiled.
- No. 96—A. C. Williams (Ravenna), Aug 5, 1896—Provide substantial railing or casing around flywheel of small engine, also along side of large engine; cover or countersink all projecting set-screws in collars on shafting; provide belt-shifter for shift-belt driving cut-off saw. Compiled.
- No. 97—Ravenna Gas and Electric Light Co. (Ravenna), August 5, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 99—Mishler Brothers (Ravenna), August 5, 1896—Cover all exposed gearing on clay crusher; provide substantial easing or railing along east side of fly-wheel of engine and around opening in second floor over clay mill. Complied.
- No. 100—Ravenna Boiler Works (Ravenna), August 5, 1896—Provide a substantial casing or railing in front of gearing of bending rolls; also around blower-pit and fly-wheel of punch. Complied.
- No. 101—D. L. Baldwin & Sons (Ravenna', August 5, 1896—Provide adjustable covers for jointer and universal wood-worker, fastened to surface-plate or bed of machines, covering the unnecessary exposure of knives, allowing only sufficient space between guard and gauge to admit material being worked. Compiled.
- No. 102—Wark & Co. (Ravenna), August 5, 1896—Case in belt operating through second floor driving packer. Complied.
- No. 104—Ravenna Shoe Manufacturing Co. (Ravenna), August 5, 1896—Arrange windows covered by fire escape so they can be opened easily; provide substantial casing or railing around pulley of engine; cover or countersink all projecting set-screws in collars on shafting; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.



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- No. 106—Riddle Hearse and Coach Co. Ravenna). August 5. 1896—Provide saw-guards for ripsaws and sharper-guards for wood-shapers, and keep same in use; adjustable covers for jointers, fastened to the surface plate or bed of jointers, covering the unnecessary exposure of jointer-knives, allowing sufficient space between guard and gauge to admit material being worked; provide suitable device in front of top-wheels of band-saws to catch saws in case they should break or slip off topwheels. Compiled.
- No. 107—Turner Worsted Co. (Ravenna). August 5, 1896—Cover or countersink all projecting setscrews in collars on shafting; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward to department, and in future report all accidents as they occur. Compiled.
- No. 108—Hine & Cook (Mantua), August 5, 1896—Provide belt-shifters for all shift-belts; adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; cover or countersink all projecting set-screws in collars on shafting; suspend casing under belt operating over passageway from engine to lineshaft, casing to be placed at a point where employes pass under belt; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 112—Bosley & Co. (Garrettsville), August 6, 1896—Provide saw-guards for rip-saws and keep same in use, cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 118—Sherman Bruce (Garretsville), August 6, 1896—Provide shift-belts with belt-shifters; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. I14—Garrettsville Table Factory (Garrettsville), August 6, 1896—Cover or countersink all projecting set-screws in collars on shafting; provide saw-guards for rip-saws and keep the same in use; case in beits on sander; also all exposed countershafts, belts and pulleys operating stoker; properly fill out accident blank and report accident that happened to James Ashald some time since, and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 115—C. W. Ki-Chung-Will-Ki (Wooster, August 18, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 117—Wooster Bending Works (Wooster), August 13, 1896—Case in belt operating planer; provide saw-guards for rip-saws and keep same in use; case in all countershafts, belts and pulleys operating near the floor; properly fill out accident blank and report accident that happened to Willam Sickley and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 118 Thompson & Davis Steam Laundry (Wooster), August 13, 1896—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 119-G. H. Clark (Wooster), August 13, 1896—Provide saw-guards for rip-saws and keep same in use; case in all exposed countershafts, belts and pulleys operating near floor-Complied.
- No. 120—Plank & Gray (Wooster), August 13, 1896—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 121—B. Barrett Sons (Wooster), August 13, 1896—Cover or countersink all/projecting setscrews in collars on shafting. Complied.
- No. 122—Wooster Shale Brick and Clay Co. (Wooster). August 18, 1896—Provide a substantial railing in front of belting operating screen; cover or countersink all projecting set-screws in collars on shafting; provide a guard in front of shaftat cut-off machine; substantial hand railing on stairs topug-mill; postnotices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 123—Wooster Steam Laundry (Wooster), August 18, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.



- No. 124—Boston Piano Co. (Wooster), August 18, 1896—Provide a casing in front of bottom wheel of band-saw and suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel: provide saw-guards for rip-saws and keep same in use; also belt-shifters for all shift-belts. Factory closed
- No. 125—D. C. Curry Co. (Wooster). August 18, 1896—Provide a casing in front of bottom wheel of band-saw and suitable protection in front of top-wheel to catch saw in case it should break or slip off top wheel; cover or countersink all projecting set-screws in collars on shafting Complied.
- No. 126—Wooster Sliding Blind Co. (Wooster), August 13, 1896—Case in feed-wheel of ponyplaner, cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 127—E. Thoemen (Wooster). August 18, 1896--Provide a substantial casing or railing around fly-wheel of engine. Complied,
- No. 130--Landes & Smoke (Wooster), August 13, 1396—Provide a substantial casing or railing in front of bottom wheel of band-saw; saw-guards for rip-saws and keep same in use; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 131—Boor & Son (Wooster), August 13, 1896—Provide a substantial railing around south and east sides of steam vat; saw-guards for rip-saws and keep same in use; cover or countersink all exposed set-screws in collars on shafting; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 132—Children's Home Laundry. Trustees (Wooster). September 4, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in pulleys and belts operating near floor driving extractor. Compiled.
- No. 188—Youngstown Specialty Manufacturing Co. (Youngstown), September 4, 1896—Cover or countersink all projecting set-screws in collars on shafting; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Factory closed.
- No. 184—Orrville Planing Mill Co. (Orrville), September 4, 1896—Provide belt-shifters for all shiftbelts; case in all exposed belts where they operate through the floor; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 135--Orrville Heat and Power Co. Orrville), September 4, 1896--Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 187—Greely & Co. (West Salem), September 30, 1896—Cover or countersink all projecting setscrews in collars on shafting; case in all exposed belts where they operate through the floor; provide belt-shifters for all shift-belts. Complied.
- No. 139—Samuel Ewing (West Salem), September 30, 1896—Case in all countershafts, belts and pulleys operating near the floor; provide a casing in front of bottom wheel of bandsaw and suitable protection in front of top wheel to catch the saw in case it should break or slip off top wheel; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; cover or countersink all projecting set.screws in collars on shafting. Closed indefinitely.
- No. 140—Rupert & Copley (West Salem), September 30, 1896—Provide saw-guard for rip-saw and keep same in use; case in all countershafts, belts and pulleys operating near floor.

  Compiled
- No. 141—Baughman Manufacturing Co. (Orrville), September 30, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in center shaft on drill press; provide belt-shifters for all shift-belts. Compiled.



- No. 148—Orrville Machine Co. (Orrville), September 39, 1896—Provide a casing in front of bottom wheel of band-sa w and suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel; cover or countersink all projecting set-screws in collars on shafting; case in countershafts operating drill presses and all exposed beits operating through floor. Complied.
- No. 144—Orrville Milling Co. (Orrville). September 30. 1896—Case in belt operating bran-duster; cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 145—A. J. T. Schantz (Orrville), September 30, 1896—Provide saw-guards for rip-saws and keep same in use; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Closed indefinitely.
- No. 146—E. T. Firestone (Fredricksburg). September 30. 1896—Provide saw-guard for rip-saw and keep same in use; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 147—A. J. Peterman (Fredricksburg). September 30. 1896—Cover or countersink all projecting set-screws in collars on shafting; provide saw-guards for rip-saws and keep same in use. Compiled.
- No. 150—M. L. Stophlet—(Fredericksburg), September 30, 1896—Provide a casing in front or bottom wheel of band-saw and suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel. Closed indefinitely.
- No. 151—Scott & Munson (Apple Creek, September 30, 1896—Case in belt in basement operating rolls and main belt on each floor where it operates through the floor. Complied.
- No. 152 Creston Milling and Produce Co. (Creston). September 30, 1896—Case in upright shaft on fourth floor. Compiled.
- No. 158—Creston Cigar Co. (Creston), September 30, 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 154—Hubbard & Co. (Creston), September 30, 1896—Provide a substantial casing or railing around driving pulley in saw mill: saw-guard for rip-saw and keep same in use; belt-shifters for all shift-belts. Compiled.
- No. 155—Lutz Brothers (Creston) September 30, 1896—Cover or countersink all projecting setscrews in collars on shafting; provide belt-shifter for all shift-belts. Complied.
- No. 156—Medina Steam Laundry Co. (Medina), September 30 1896—Case in belts and pulleys operating ironing machine. Complied.
- No. 158-W. B. McKenney (Medina , September 30, 1896—Provide saw-guard for rip-saw and keep same in use. Complied.
- No. 159—Medina Bending Works (Medina, September 30. 1896—Provide a substantial casing or railing around fly-wheel of engine; saw-guard for rip-saw and keep same in use. Complied.
- No. 160—A. I. Root Co. (Medina), September 30, 1896—Provide suitable protection in front of top wheel of band-saw to catch saw in case it should break or slip off top wheel; saw-guard for rip-saw and keep same in use; properly fill out accident blank and report.

  accident that happened to one of your employes some time since, and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 161—A. I. Root Co. (Medina), September 30, 1896—Case in exposed belting where it operates through the floor. Complied.
- No. 164—I. M. Overholt (Seville), September 30, 1896.—Case in main belt on second floor; provide saw-guard for rip-saw and keep same in use. Complied.
- No. 166—C. L. Matson (Seville), October 1, 1696.—Provide saw-guards for rip-saws and keep same in use; cover or countersink all projecting set-screws in collars on shafting: provide a casing in front of bottom wheel of band saw, and suitable protection in front of top wheel to catch the saw in case it should break or alip off top wheel. Moving machinery to another building.



- No. 168-J. S. Oberholtzer (Wadsworth), October 1, 1896.—Provide a casing in front of bottom wheel of band-saw and suitable protection in front of top wheel to catch the saw in case it should break or slip off top wheel. Complied.
- No. 170—Macanord Insulator Co. (Wadsworth). October 1, 1896.—Provide a casing in front of bottom wheel of band-saw and suitable protection in front of top wheel to catch the saw in case it should break or slip off top wheel; case in exposed gearing operating in front of callender rolls. Compiled.
- No. 171-Wadsworth Milling Co. (Wadsworth), October 1, 1896.—Provide belt shifters for all shift belts. Partial compliance.
- No. 172—Ohio Injector Co. Wadsworth), October 1, 1896.—Provide saw guard for rip-saw and keep same in use. Compiled.
- No. 173—Wadsworth Salt Co. (Wadsworth), October 1, 1896.—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 174—Wadsworth Salt Co (Wadsworth), October 1, 1896.—Case in both ends of countershaft operating rip-saw; properly fill out accident blank and report accident that happened to one of your employes some time sinc) and forward to this department, and in future report all accidents as they occur. Compiled.
- No. 175—R. Larne (Painesville), October 15, 1896.—Provide saw guards for rip-saw and keep same in use; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 176—Coe & Wilkes (Painesville), October 15, 1896.—Cover or countersink all projecting setscrews in collars on shafting. Complied.
- No. 177—S. L. Martin & Son (Painesville). October 15, 1896.—Provide saw guards for rip-saws and keep same in use; adjustable cover for jointer, fastened to the surface plate on bed of jointer, covering the unnecessary exposure of jointer knives, allowing only sufficient space between guard and gauge to admit material being worked; provide suitable protection in front of top wheel of band-saw to catch saw in case it should break or slip off top wheel. Complied.
- No. 179—Tayler Manufacturing Co. (Painesville), October 15, 1896.—Provide a substantial casing in front of bottom wheel of band-saw and auttable protection in front of top wheel to-catch saw in case it should break or slip off top wheel; saw-guard for rip-saw and keep same in use; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 180—C. C. Finneran & Co. (Painesville), Oct. 15, 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 183—F. A. Cone (Painesville), October 15, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 184—Tompson Brothers (Painesville), October 15, 1896—Provide a substantial casing or railing on north side of fly-wheel of belt driving brick machine. Factory closed, will comply when business resumes.
- No. 186—Diamond File Co. (Grand River), October 15, 1896—Case in lower pulley operating shearer; cover or countersink all projecting set-screws in collars on shafting; properly fill out accident blank and report accident that happened to George Mead, and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 188—Buckeye Brick Co. (Wickliffe), October 28, 1896—Provide a substantial easing or railing around fly-wheel of engine. Complied.
- No. 189—W. B. Owen (Wickliffe), October 28, 1896—Case in countershaft and belt operating clay machine; provide a substantial casing or railing around fly-wheel of engine. Closed indefinitely.
- No. 190--American Clay Working Machine Co. (Willoughby), October 28, 1896--Case in countershaft, belt and pulley operating sand belt; provide a substantial protection in front of top wheel of band-saw to catch saw in case it should break or slip off top wheel; case in driving pulley on main lineshaft in erecting room. Complied.



- No. 198--Hopkins & Cone (Willoughby), October 28, 1896—Case in belt and pulley operating corncrusher; provide a trap door for opening in floor over corn crusher; case in belt operating corn-sheller. Complied.
- No. 194—Cleveland, Painesville & Eastern R. R. Co. (Willoughby), October 28, 1896—Provide a substantial railing or guard at each end of condenser pit. Complied.
- No. 195-James Robinson (Willoughby), October 28, 1895--Cover or countersink all projecting setscrews in collars or shafting; properly fill out accident blank and report accident that happened to Fred Barnes, and forward the same to department, and in the future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed and keep a record of all such minors. Order complied with, machinery removed.
- No. 196--J. Jenkins & Son (Willoughby). October 28, 1896—Provide saw-guards for all rip-saws and keep same in use. Complied.
- No. 197--Willoughby Electric Light and Water Pumping Station (Willoughby), October 28, 1896-Provide a substantial casing or railing around fly-wheel of engine; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 198--Austin & Stocking (Madison), October 28, 1896—Case in all countershafts, belts and pulleys operating near floor: cover or countersink all projecting set-screws in collars on shafting: provide belt-shifters for all shift-belts; place a railing around opening in floor on south side of fly-wheel of engine. Compiled.
- No. 199--Wright Brothers & Co. (Madison), October 28, 1896--Provide a substantial casing or railing around west side of fly-wheel pit; case in pulleys on veneer machine; cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 200-Miller & Lapham (Madison), October 28, 1896-Provide a casing in front of south end of rolls to prevent employes coming in contact with pulleys. Compiled.

# TABLE III-THIRD DISTRICT-FACTORIES INSPECTED.

### HURON COUNTY.

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ž	Males.		*	2	_			#####################################
	Business or kind of manu- facturing.		Cigars		Fraumg omce	UNTY.		Planing mill and repair shop Repair shop Planing mill General plating Flue scrapers Planing mill Flour and feed mill Flour vacyes Converter bottoms Lifton Steel rails Machine shop Elaboratory Steel rails Gue Gue Gue Gue Gue Gue Gue Gue Gue Gue
	Location.		Main street		Main and Linwood streets Frinting omce	LORAIN COUNTY		СО.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.  Broad way.
	Name of firm and city, town or village.	BRITKVUR.	W. H. Grant	NORWALK.	musted & Williams	•	LORAIN.	C. I. & W. Railway Co. C. I. & W. Kailway Co. C. I. & W. Kailway Co. C. I. & W. Kailway Co. Lorain Plating Works. Lorain Lumber & Manufacturing Co. Fewer Bres. Manufacturing Co. Williams, Barrows & Co. Williams, Barrows & Co. National Vapor Stove and Manufacturing Co. National Vapor Stove and Manufacturing Co. Johnson C. (bottom department). Same (curpoia building). Same (powerbouse). Same (powerbouse). Same (borakory). Same (blooming mill). Same (blooming mill). Same (plit furnacer house).
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Steel rais Shape mil boller house Steel rais A utiliary boller house Planing mill Spilce bars General office	Planing mill.  Carriage specialties Telephones Four mill. Four mill. Bottling works Higgeles Linseed oil. Bitycle saddles.	Electric supplies, etc Shafts and poles Clay working machinery	Oil well sucker rods	OUNTY.	Suspenders and neck wear	OUNTY.	Knives. of matk
Pearl street and Tenth avenue.	3 Pine street  68 Broad street  70  70  Lodi street  Center street	Near Big Four R. R	Near L. S. W. R. R	RICHLAND COUNTY	Diamond street	SANDUSKY COUNTY	Archstreet
Same (boller house—Bessemer) Same (stripper building) Same (stripper building) Same (stripper building) Same (striking boller bouse) Same (striking boller bouse) Same (splice bar shop) Same (office) Same (office)	Elytia Lumber Co.  C. Parsoh Topliff & Ely Co. Rawson Electric Go. G. Reublin E. Stram Laundry G. Reublin E. Schnarer Bottling Works Fay Manufacturing Co. Diagroud Linesed Oli Co. Wallandroud Linesed Oli Co. Wallandroud Wallandroux.	Warwick Electric Manufacturing Co	S. Kile & Son	MAWGETERS	Western Suspender Co		Christy Knife Co. Malk Co. Trommer Extract of Malk Co. Wickland Manufacturing Co. Clauss Shear Co. Fremont Troy Steam Laundry. C. W. Tschumy.
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# TABLE III-THIRD DISTRICT-FACTORIES INSPECTED-Concluded.

## SANDUSKY COUNTY -Concluded.

ordered corre- tol 190- ble.	For changes of sponding number of sponding number states at the sponding this tales	200 200	2 223
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ė.	Minors		
Number employed.	Females	-33-   -	-
Na	Males.	3545845arv \$348arv 41	550052
	Business or kind of manu-facturing.	Engines and boliers Frour and feed mill. Shirts Muslin underwear. Agroutural implements Puralture Drop forgings. Neets yokes. Saw and planing mill. Tables and cots. Tables and cots. Frour and feed mill. Brewery Frour and feed mill. Fruiteys. Electric light plant.	Household novelties. Flour and feed mill. Flour and feed mill. Electric light plant. Buycles. Knives and pruning shears. Knives, eto.
	Location.	Water street. Garrion street. Front street. Near L. S. & M. S. depot Near L. S. & M. S. depot State street. Oak street.	
	Names of tirms and city, town or village.	D. June & Co. W. A. Uox. W. A. Uox. A. D. Hook. Lebr. A. H. Jackson. J. Schellkopt. Berry & Davis. Thomson-Houston Carbon Co. Thomson-Houston Carbon Co. A. F. Price. Fremout Furniture and Coi. Co. A. F. Price. Fremout Furniture and Coi. Co. A. F. Price. Fremout Furniture and Coi. Co. A. F. Price. Fremout Fluiby Co. Fremout Fluiby Co. CI.VDE.	McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros McConnell Bros
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### THIRD DISTRICT-FACTORIES.

### DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.

- No. 1—Christy Knife Co. (Fremont), December 3, 1895—Provide belt-shifters for all shift-belts; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 3—Wickland Manufacturing Co. (Fremont), December 3, 1895—Provide belt-shifters for all shift-belts in polishing room; post notices of the hours of labor required a day of minors in your employ under age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 6—Herbrand Co. (Fremont), December 8, 1895—Suspend casing under main belt in forge department; connect emery-wheels and belts with exhaust system and keep exhaust system in good working order at all times; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 7—C. W. Tschumy (Fremont), December 3, 1895—Provide saw-guards for rip-saws and keep same in use. Complied.
- No. 12—Lehr Agriculture Co. (Fremont) December 12, 1895—Cover or countersink all set-screws in collars on shafting; keep a record of all minors in your employ under the age of eighteen years. Complied.
- No. 13—J. J. Schellkopf (Fremont), December 12, 1895—Provide saw-guard for rip-saw and shaper-guard for wood-shaper and keep same in use. Not reported as complied.
- No. 16—N. C. West, 'Fremont' December 16, 1895—Suspend casing under main belt over passageway, in planing mill department: 'provide a tightening pulley for belt in basement; properly fill out accident blank and report accident that happened to one of your employes sometime since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 17—Thompson-Houston Carbon Co. (Fremont), December 12, 1895—Case in pulley operating conveyer in mill room. Complied.
- No. 18—Fremont Furniture and Cot Co. (Fremont), December 12, 1896—Provide an adjustable eover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to this department, and in future report all accidents as they occur. Compiled.
- No. 19—A. F. Price (Fremont), December 12, 1895—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives allowing only sufficient space between guard and gauge to admit material being worked; case in side belt of planer on first floor; properly adjust shaper-guard to wood-shaper and keep same in use. Compiled.
- No. 24- R. J. Christy Manufacturing Co. (Clyde), December 18, 1895—Provide belt-shifters for all shift-belts; cover or countersink all projecting set-screws in collars on shafting; case in large pulley on lineshaft on second floor; place a casing in front of main shaft on first floor in front of engine room. Factory closed.

- No. 27—Elmore Manufacturing Co. (Clyde), December 18, 1896—Cover or countersink all projecting set-screws in collars on shafting; when polishing-room is moved to second floor, connect all sand belts and wheels with exhaust system; post notices of thehours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as compiled.
- No 28—Clyde Cutlery Co. (Clyde). January 2, 1896—Provide an exhaust system and connect same with sand-belt and wheal; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 29—Clipper Shear Co. (Clyde), December 18, 1895—Provide saw-guard for rip-saw and keep same in use; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 31—C. L. & W. Ry. Co. (Lorain), December 18, 1895—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; suspend casing under belt driving countershaft on large planer; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 32—Lake Eric Electric Light Co. (Lorain), December 18, 1895—Provide a substantial railing around large driving pulley of engine, also around all belts operating dynamos and around Ball engine. Complied
- No. 34—B. H. Wood (Lorain), December 18, 1895—Place a substantial casing or railing around flywheel of engine; case in clutch on lineshaft in basement, and bridge over lineshaft at all passageways; provide a substantial casing or railing around two large pulleys on lineshaft in boller-room; cover or countersink all projecting set-screws in collars on shafting; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Compiled.
- No. 35—Lorain Plating Works (Lorain), December 18, 1895—Cover all pulleys on poliahing shaft; place a substantial easing or railing around fly-wheel of engine; cover or countersink all projecting set-screws in collars on shafting; connect polishing wheels with exhaust system. Not reported as complied.
- No. 36—Essex Brothers Manufacturing Co. (Lorain), December 18, 1895—Cover or countersink all projecting set-screws in collars on shafting: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of same. Complied.
- No. 37—Lorain Lumber and Manufacturing Co. (Lorain), December 18, 1895—Cover or counter-sink all projecting set-screws in collars on shafting; provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 38—Williams, Barrows & Co. (Lorain), December 30. 1895—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 39—National Vapor Stove and Manufacturing Co. (Lorain). December 30, 1895—Provide a substantial casing or railing around fly-wheel of engine; out off railing in front of engine sufficient to make a wider passage between railing and dynamo; cover exposed gearing on No. 5 Bliss press; cover or countersink all projecting set-screws in collars on shafting; provide an exhaust system to carry away dust from polishing and buffing wheels; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as compiled.
- No. 41—Elyria Lumber Co. (Elyria), April 18, 1896—Provide a guard for each of your rip-saws and keep same in use; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; in engine room, case over belt where it passes through wall, to prevent contact therewith; cover or case in idle pulley in such manner that engineer or other person passing under driving belt will not come in contact with pulley or belt; provide an exhaust system to carry away dust from all dust-creating machinery. Compiled.



- No. 42—C. Parsch (Elyria), April 13, 1896—Case in countershafts, belts and pulleys operating planer on first floor; provide saw-guards for rip-saws and keep same in use; adjustable cover for jointer, fastened to surface-plate or bed of jointer, covering unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Not reported as complied.
- No. 43—Topliff & Ely Co. (Elyria), April 13, 1896—In wood-working department place casing around pulleys of shaper; cover small gearing on both sides of plainer; cover or countersink all projecting set-screws in shafting: if small elevator at west end of building is used at any time to carry passengers from first to second floor, provide a casing between large belt operating through second floor and elevator shaft; in the forge room, cover each forge fire with hood and connect with chimney, hoods to be large enough and constructed in such manner as to receive smoke and gases from forges. Not reported as complied.
- No. 48—Johnson Co.—Power House—(South Lorain), April 13, 1896—Provide substantial railing along side of all belts driving dynamos in power house. Complied.
- No. 60—Johnson Co.—Plaining Mill—(South Lorain), April 13, 1896—Provide saw-guards for rip-saws and keep same in use; adjustable cover for jointer, fastened do the surface-plate or bed of jointer, covering the unnecessary exposure of jointer knives, allowing only sufficient space between guard and gauge to admit material being worked; shaperguard for wood-shaper and keep same in use; substantial casing in front of lower wheel of band-saw; case in all countershafts, belts and pulleys operating through floor. Compiled.
- No. 67—Elyria Milling Co. (Elyria), July 9, 1896—Case in all exposed gearing; provide spring on gates at elevator openings, so that gates will close when elevator leaves floor.

  Complied.
- No. 68—L. Schnuerer Bottling Works (Elyria). July 9, 1896—Cover or countersink all projecting set-screws in collars on shafting; provide a substantial casing or railing around flywheel of compressor. Compiled.
- No. 71—Garford Manufacturing Co. (Elyria), July 9, 1896—Provide belt-shifters for all shift-belts keep a correct record of all minors in your employ under the age of eighteen years; properly fill out accident blanks and report accidents that happened to five of your employes some time since and forward same to department, and in the future report all accidents as they occur. Not reported as compiled.
- No. 72—Warwick Electric Manufacturing Co (Wellington), September 2, 1896—Enclose all belta operating dynamos with substantial railings. In the hands of receiver; to be sold.
- No. 73—G. H. Palmer & Co. (Wellington); September 2, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward to department, and in the future report all accidents as they occur. Complied.
- No. 74—Wellington machine Co. (Wellington), September 2, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; a substantial casing in front of bottom wheel of band-saw; adjust saw-guard to rip-saw and keep same in use. Compiled.
- No. 75—S. Kile & Son (Grafton), September 25. 1896—Case in end of main shaft in engine room; provide belt-shifters for all shift-belts. Compiled.
- No. 77—Husted & Williams (Norwalk), October 29, 1896—Case in countershaft operating between two type-setting machines; cover or countersink all projecting set-screws in collars on shafting; provide a substantial casing or railing around fly-wheel of large press and gas engine. Not reported as compiled.
- No. 78—Harvey & Sons (North Fairfield). November 17, 1896—Provide a substantial casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel; provide hood for swing-saw, same to be made of metal and fastened to frame work of saw; provide shaper-guard for wood-shaper and keep same in use, an adjustable cover for jointer, fastened to surface-plate or bed of jointer, covering unnecessary exposure of jointer knives, allowing only sufficient space between guard and gauge to admit material being worked Compiled.



### EXECUTIVE DOCUMENTS.

# TABLE IV-FOURTH DISTRICT FACTORIES INSPECTED.

## PAULDING COUNTY.

				mn N	Number employed.		empioyed.	,	ordered h corre- nber fol- able.
	Name of firm and city, town or village.	Location.	Business or kind of manu- facturing.	Males.	Females.	Minore.	Total number	How often are Sloyes paid	For changes sponding number of the first sponding this to the first sponding this to the first sponding this to the first sponding this to the first sponding this to the first sponding this to the first sponding this trip.
	PAULDING.								
ZEETEE	Herzer Elevator Co. Con Ragan & Co. Paul Weidman Flouring Mills. Paul Weidman James I.v m Paulding County Republican. Paulding Democrat	C. J. & M. Ry Jackson Street C. J. & M. Ry C. J. & M. Ry Perry street	Grain elevator Building material Flour and feed mill Barrel heading Urain, tille, brick etc Paper and Job printing Paper and Job printing	4865244		4	40040	Weekly	2.28.28
53	ANTWERP.  Western Cigar Co	Main street	Cigars. Flour and feed mill.	64 rc			69 10	Weekly	ಜ
	BATSON.								
	J. F. Bond W. K. Tingle Wilbur Rogers. GROVER HILL.	F., Ft. W. & W. Ry F., Ft. W. & W. Ry	Brick and drain tile	446		18	448	Weckly	
	' ! ; ; !	F. Ft. W. & W. Ry	Grain elevator	8144EE		=	814458B	Weekly	8 60

· Factory closed.

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	Sawed heading Saw mill. Brick and drain tile	Barrel hoops, etc	Barrel staves. Cupboards, sideboards, etc. Bulding material. Barrel staves. Chopped feed. Building material. Weekly paper & job print'g	Barrel staves, etc	Barrel staves, etc	Barrel staves, etc	Barrel staves, heading, etc	Planing mill, etc	Spokes, etc
	F., Ft. W. & W. By	F Ft. W. & W. By	N. Y., C. & St. L. Ry N. Y., C. & St. L. Ry N. Y., C. & St. L. Ry Merrin street.	N. Y., C. & St. L. Ry	N. Y., C. & St. L. Ry	N. Y., C. & St. L. Ry			Spokes, etc
Medital	Gideon Bros Same Parker & Reff	Tipton.  103¢ George Speice	H. F. Schneiker & Co. Edwin Cowell. Payne Furniture and Manufacturing Co. Jacob Return Payne Stave Co. Z. H. Travis J. S. Emigh Lumber Co. J. S. Emigh Tumber Co. J. S. Fanigh Tumber Co.	BRICKTON J. H. McGee	WORSTVILLE. Joseph Farault	I.ATTY. Fagle Stave Works	Внопентом. Falwin Bell & Sons Co	MRIROSR. J. L. Preston	Cecil Manufacturing Co
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TABLE IV-FOURTH DISTRICT-FACTORIES INSPECTED-Continued.

### PUTNAM COUNTY.

For changes ordered see note with corres ponding number following this table.			22 23		52 55 52 55 52 55 53 54 54 54 54 54 54 54 54 54 54 54 54 54			\$2 <b>9</b> 2
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	Business and kind of manu- facturing.		Barrel staves Grain elevator Sav and planing mill Grain elevator Electric light Colled boops, etc		Ax handles	Flour and feed Blankets, cloth. etc Flour and feed Ax handles	State mill Drain tile Paper and job printing	Creamery butter
	Location.		N. Y., C. & St. L. Ry		West Sycamore street		High street.	C. H. & D. Ky. uring Go
	Name of firm and city, town or village.	CONTINENTAL	Buckeye Stave Co Buckeye Elevator Co A Morris United Elevator Co Continental Electric Co Buckeye Stave Co	COLUMBUS GROVE.	J. H. Belford Sons & Rimer D. C. Shank Columbus Grove Electric Light Co J. F. Janoes & Sons	Fagle Flour Mills Columbus Grove Woolen Mills Grove Mills N. A. Talgert.	A. I. Shuth. Buckeye Stave Co. W. R. Kauffman. Putnam County Vidette.	Clover Creamery Co Ottawa Flour Mils. H. D. Ream Wheel Co. Gander Co Clander Co Ottawa Gate Manufact
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\*Factory closed. †Factory destroyed by fire.

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Planing mill Electric light Laundrying Cigars Paper and job printing Paper and job printing Paper and job printing Weekly paper Grain elevator	Flaning mill Electric light, etc Saw mill Barrel staves and heading. Butter and ice-cream. Machine shop. Faper and joh printing. Frour and feed mill. Grain elevator. Brick and drain tille.	Planing mill Grain elevator Drain tile	Barrel staves and heading	Barrel staves, hoops, etc Barrel staves	Planing mill	Barrel staves
C, H, & D, By.	C., H. & D. Ry.  Near N. Y. & St. L. Ry.  C., H. & D. Ry.  C., H. & D. Ry.	N. Y. & St. L. Ry.		F. Ft. W. & W. Ry		F. Ft. W. & W. Ry  A. Barrel staves
G. S. Williams Ottawa Electric Light Co. Handen & Cummer. John Fritz Ottawa Gazette. Enterprise Cigar Factory. Putnam County Sentinel. Der Demokrat. R. Slawson & Son. LEIPSIC.	O. E. Townsend & Co. A. F. Easton A. F. Easton Huber & Stave Co. Huber & Spray Leripse Press W. C. Miller & Son. V. C. Miller & Son. Letipsic Brick and Tile Works.	O. E. Townsend Nickle Plate El M. E. Polesdorf	170t Buckeye Stave Co	Hector Stave Co	GLANDORF.  F. N. Fills & Co Glandorf Woolen Mills. Charming Roller Mills.	AVIS. Buckeye Stave Co KALID. Buckeye Stave Co
44 44 45 45 45 45 45 45 45 45 45 45 45 4	233555 <u>535</u> 55	165 168	170	Ę E	173 174	178

\*Factory closed. †Factory destroyed by fire.

TABLE IV-FOURTH DISTRICT-FACTORIES INSPECTED-Continued.

## VAN WERT COUNTY.

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How often are employes paid.			Semi-mo.	Semi-mo.	Weekly	Weekly Mouthly Weekly Weekly Moekly Wookly
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Number em ployed.	Females		-	-4		
Nur	Males		\$-01-4·	<del>+-</del> +	01 01	8 to 01 to 02 to 01 to 04
	Business or kind of manu- facturing.		Wheel material Gas. Flour and feed mill Wire fence. Paper and job printing	Laundrying and dyeing Electric light & power house	Handles and furniture Feed and grain elevator	Sucker rods Electric light & power house Grain elevator Foundry work, etc. Foundry work, etc. Foundry work, etc. Wagon & carriage material. Warehouse Gas. Foundry for a familiar famil
,	Location.		Canal street	Third street	Carmaine street	Center street Jackson street Jackson sard Cherry streets Crawford and Walnut streets. Shannon street Jackson street Jackson street Jackson street Jackson street Shannon street Shannon street Shannon street Shannon street
	Name of firm and city, town or village.	DELPHUS	Ohio Wheel Co Delphos Gas Light Co Delphos Roller Mills Mass Ferre Co Carl A. Jettinger	The Content Delphos Electric Light and Dye Works Delphos Electric Light and PowerCo Outo Cirx	Ohio City Handie and Furniture Factory Smith Bros	Oli Weil Supply Co Electric Light and Power Co. Van Wert Elevander Co. Van Wert Elevander Co. Van Wert Elevander Co. Van Glesson & Bro. J. A. Glesson & Bro. Van Wert Water Vorles Van Wert Gas Light Co. Van Wert Gas Light Co. Van Wert Gas Light Co. Van Wert Water Vorles
	Number.			ec (- 30	 ag	28687657588

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64 10						
2000 4 TO 4 C TO TO TO	8340	89	800	-	<u> 48                                   </u>	48%
Feed mili. Laundring mili. Planing mili. Flour and feed mili. Newspaper and job ptg Banana crates. Plance. Plance. Ball bats and spoke stock	Grain elevator, etc Saw mill Drain tile	Flour and feed	Staves, heading, etc	OUNTY.	Electric light plant Plows and harrows. Combination tables. Planting mill Saw mill. Show tasks. Flour and feed mill. Show tasks. Brow as the show to see the show tasks. Creamery butter Creamery butter Creamery butter Pumping station.	Flour and feed mill
Walnut street	F, F. W. & C. Ry.	T., St. L. & K. C. Ry	C. J. & M. By	WILLIAMS COUNTY	Wahut St. and L. S. & M. S. Ry. Beach and Buller streets	Jackson street. Main street. Jackson streef
Monitor Feed Mills. Black's Steam Laundry. D. Spangler Union Mills Flouring Co. Yan Wert Times. Yan Wert Bulletin. An Wert Shilletin. A. K. Gleason & Simon. Anderson & Newton Plano Co. Wooley & Coombs.	Nezer & Co. L. W. Lorber Baxter & Benson. David Everett.	WILLSHIRE. Hale Bros Scutt.	Leeson Cooperage Co	BHYAN.	Bryan Fleetric Co. Bryan Plow Co. Combination Table Co. Combination Table Co. J. C. Shoop Glib Mills Elevator. Bryan Candy and Cracker Case Co. Diebely & Son. Halm Brew sery Co. J. G. Neft & Sons. Bryan Creanery. Bryan Creanery.	WEST UNITY. Unity Mill Co West Unity Manufacturing Co West Unity Manufacturing Co West Unity Woolen Mills
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TABLE IV-FOURTH DISTRICT-FACTORIES INSPECTED-Concluded.

## WILLIAMS COUNTY-Concluded.

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	How often are er	Weekly Monthly Irregular Weekly	Semi-mo	Weekly Monthly Weekly	Monthly.
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ė l	Minors.				
Number employed	Lemnjes.			on I	
Nun	Males,	\$0875F	01220000000	2000	E2
	Business or kind of manu- facturing.	Lumber, chain, stock, etc Excelsior Colled elm hoops Lumber and colled hoops Drain tile and brick	Creamery butter grand Belighing material, etc Building material, etc Furnaces, etc Paper and job printing Hard wood lamber. Building material. Flour and feed mill	Rankets, hosiery, etc Buiding material Handles and spoke stock Baskets	Oars, harness, etc
	Location.	Wabash Raliroad Near Wabash Raliroad Wabash Raliroad	Depot and Bryan streets Mill street. Main and Broad streets. Monroe street.	Michigan avenue	rer. Defiance street.
	Name of firm and city, town or village.	ALVORDTON.  L. H. Hosler & Sons.  McNeal & Co.  Garrison Geesey & Summers.  Garver, Rhodes & Garver.  Alvordton Briek and Pile Works.	Montpeller Butter & Cheese Manufacturing Co. Montpeller Municipal Plant W. S. Boon Louis Wingert, Moutpeller Enterprise J. Y. Housman & E. Smith H. B. Franks Montpeller City Mills	EDORRTON. Kelly Woolen Mills H. Kruse. Briggs & Walter Challenge Manufacturing Co.	Stryker Manufacturing Co
	Number.	88828	22828888	2332	68



### FOURTH DISTRICT-FACTORIES.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED, AND DATE OF ISSUE.
- No. 1—Ohio Wheel Co. (Delphos), April 14, 1896—Provide an exhaust system to carry away dust from all dust-creating machinery; saw-guards for rip-saws and keep same in use; belt-shifters for all shift-belts; cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 3--Delphos Roller Mills (Delphos), April 14, 1896--Provide a guard in front of gear wheels mashing inward on attic floor also square and beveled wheels; cover or countersink all projecting set-screws in collars on shafting. Partially compiled.
- No. 4—Mast Fence Co. (Delphos), April 14, 1896—Remove the ends of protruding bolts on main driving pulley of engine, also pulley on shafting, or place a casing in front of bolts to prevent employes coming in contact with them. Complied.
- No. 8—Delphos Electric Light and Power Co. (Delphos), April 14, 1896--Provide substantial railing on both sides of all belts from dynamos to driving pulleys on main shafting, also on both sides of driving belt and pulleys of small stationary engine. Complied.
- No. 9—Handle and Furniture Factory (Ohio City), April 14, 1896—Place a casing in front of lower wheel of band saw; provide a loose pulley and belt-shifter for rip-saw, so that saw can be stopped when not in use. Removed to Kentucky.
- No. 10—Smith Brothers (Ohio City), April 14, 1896—Provide a cover over end of shafting operating corn-sheller; cover or countersink all protruding set-screws in collars on shafting. Partially compiled.
- No. 11—Oil Well Supply Co. (Van Wert), April 14. 1896—Provide a hood or cover for cut-off saw on first floor, hood or cover to be securely fastened to the frame-work of saw, and to come down over front of saw as far as practicable; cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 12—Electric Light and Power Co. (Van Wert), April 14, 1896—Provide substantial railings on both sides of all belts from dynamo to main lineshaft would suggest that you make said railings out of gas pipe. Not reported as compiled.
- No. 18—Van Wert Elevator (Van Wert), April 14, 1896—Provide a substantial cover for conveyer located in basement, over which employes must pass going in and out of basement. Complied.
- No. 14—Van Wert Machine Works (Van Wert), April 14, 1896—Provide saw-guard for rip-saw and keep same in use. Complied.
- No. 15—City Mills (Van Wert), April 21, 1896—Provide a substantial casing or railing along side of fly-wheel of stationery engine from main shaft to pump; case in beveled gearing on buckwheat mill on second floor; case over shafting at passageway driving machinery of warehouse elevators; case in main driving belt operating through first and second floors, casing to be at least four feet high; cover or countersink all projecting set-sorews in shafting; provide a substantial covering over cistern. Factory destroyed by fire.
- No. 16—Gleason Lumber Co. (Van Wert). April 21. 1896—Provide saw-guard for rip-saw and keep same in use; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 17—J. A. Gleason & Brother (Van Wert), April 21, 1896—Provide an efficient exhaust system to carry away dust from all sand-belts: a substantial casing in front of bottom wheel of band-saw; cover or countersink all projecting set-screws in shafting, repair the second bearing of lineshafting from west end of building. Compiled.
- No. 19—Van Wert Gas Light Co. :Van Wert), April 21, 1896--Provide a fence around unused tank.

  Not reported as complied.



- No. 21—Crescent Steam Laundry (Van Wert), April 21, 1896—Thoroughly cleanse and disinfect water-closet and keep in good sanitary condition. Not reported as compiled.
- No. 24—D. Spangler (Van Wert), April 21, 1896—Provide belt-shifters for all shift-belts and keep same in use: cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 25—Union Mills Flouring Co. (Van Wert), April 21, 1896—Provide a cover over pulley and belt driving scouring machine in attic; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 26—People's Mills (Van Wert), April 21, 1896—Provide a substantial cover over well in rear of building; cover or countersink all projecting set-screws in collars on shafting. Partially complied.
- No. 30—A. k. Gleason & Simon (Van Wert, May 19, 1896—Provide a rope of sufficient length and pulleys to carry balance weights of tightening pulley of bolting-saw close up to wall of building, the location of weight at present time is immediately over saw, making it dangerous to employes if rope should break; cover or countersink all projecting set-screws in collars on shafting; provide saw-guard for rip-saw and keep same in use. Compiled.
- No. 31—Anderson & Newton Piano Co. (Van Wert), May 19, 1895—Provide a substantial easing or railing around fly-wheel of stationary engine; shaper-guards for wood-shapers and keep same in use; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; cover or countersink all projecting set-screws in collars on shafting; cover coupling located near bearing on lineshafting, as instructed by the inspector. Complied.
- No. 82—Wooley & Coombs (Van Wert), May 19, 1836—Provide saw-guard for rip-saw and keep same in use; a loose pulley and belt-shifter for cut-off saw, so that saw can be stopped when not in use. Factory closed.
- No. 33 -Niezer & Co. (Convoy), May 19, 1896—Provide substantial hand-railings along sides of all grain bins. Compiled.
- No. 84—L. W. Lorber (Convoy), May 19, 1896—Provide a hood or cover for swing-saw, hood or cover to be fastened to frame-work and to come down over front of saw as far as practicable; saw-guard for rip-saw and keep same in use. Partially compiled.
- No. 35—Baxter & Benson (Convoy), May 19, 1895—Case in driving wheel of tile machine; provide a box or cover over out-off saw, fastened to sliding table, as instructed by inspector. Factory closed.
- No. 37—Hale Brothers (Willshire), June 1, 1896—Cover or countersink all projecting set-screws in collars on shafting. Not reported as compiled.
- No. 28—Leeson Cooperage Co. (Van Wert), June 1, 1896—Place a casing over large gear-wheel driving log carrier; cover over large equalizing saws, provide covers with doors so saws can be removed when necessary; immediately discharge from your employ John Rausch, ten years of age, Morgan Williams eleven years and Frank Hartsog eleven; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Factory closed.
- No. 39—John T. Scott (Scott), June 1, 1896—Provide substantial casing or railing along side of main belt from engine to driving pulley on drain tile muchine; discharge Forrest Rinehart, thirteen years of age; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 42—Bryan Plow Co. (Bryan). June 1, 1895—Provide belt-shifters for all shift-belts; saw-guard for rip-saw and keep same in use; a substantial casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or alip off top wheel; cover or countersink all projecting set-screws in collars on shafting; provide an exhaust system to carry away dust from emery and grinding wheels and polishing belts. Not reported as complied.
- No. 43—Combination Table Co. (Bryan), June 1, 1896—Provide saw-guards for rip-saws and shaper-guards for wood-shapers and keep same in use; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; provide an exhaust system to carry away dust from all dust-creating machinery. Compiled.

- No. 44—Niederaur Brothers (Bryan), June 1, 1896—Provide belt-shifters for all shift-belts; saw guards for rip-saws and shaper-guards for wood-shapers and keep same in use; cover or countersink all projecting set-screws in collars on shafting; provide an iron hood over gear-wheels mashing inward on feed roll on rear end of planer. Partially compiled.
- No. 45—J. C. Shoop (Bryan), June 1, 1896—True up countershaft driving cut-off saw, bearings of shaft should be rebabbited, shafting is running in a very unsafe condition at present. Change of nature of business.
- No. 46—Gilbert Lockhart (Bryan), June 1, 1896—Provide saw-guard for rip-saw and keep same in use; an adjustable cover for jointer, 'astened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; properly fill out accident blank and report accident that happened one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 47—City Mills Elevator (Bryan), June 1, 1895—Provide a substantial casing in front of gearwheels mashing inward and main line shafting on top floor, as explained by the inspector; replace all protection that has been removed from in front of the gear wheels on bolting chest; cover or countersink all projecting set-screws in collars on shafting. Mill destroyed by fire.
- No. 49—Diebely & Son (Bryan). June 11, 1896—Provide a casing along side of gear-wheel driving grain elevator in attic; also a casing from celling down below bottom face of large pulleys on main lineshafting in basement, casing to cover both sides of two large driving pulleys from face to face so that employes when passing between pulleys will not be caught by same; 'provide substantial hand-rating along side of and on top of grain bins; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 50—Halm Brewing Co. (Bryan), June 11. 1896—Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 54—Bryan Steam Laundry (Bryan), June 11, 1896—Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 55—Unity Mill Co. (West Unity), July 15, 1896—Provide a substantial easing around main belt operating through floors, casing to be at least four feet high; case over gear-wheels operating near floor in attic; cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 57—West Unity Woolen Mills (West Unity) July 15. 1896—Provide belt-shifters for all shiftbelts; cover or countersink all projecting set-screws in collars on shafting. Not reported as compiled.
- No. 58—L. H. Hosler & Sons (Alvordton), July 15, 1896—Provide a substantial casing in front of bottom wheel of band-saw; place casing or railing along side of main belt and driving pulley, casing to extend from brick wall to main shaft of engine driving saw-mill saw. Compiled.
- No. 59—MoNeal & Co. (Alvordton), July 15, 1896—Cut off protruding key on east side of fiy-wheel of excelsior bailing pressing machine; out off or cover over protruding holts and nuts on west side of same mathine. Compiled.
- No. 60—Garrison, Geesey & Summers (Alvordton), July 15, 1896—Cover gear-wheels on both ends of hoop-cutting machines; guard over exposed knives on pointer and lapping machine; provide a loose pulley and belt-shifter for cut-off saw, so that saw can be stopped when not in use; cover or countersink all protruding set-screws in collars on shafting. Partially complied.
- No. 61—Garver, Rhoads & Garver (Alvordton), July 15, 1896—Provide belt-shifters for all shift-belts; a casing in front of countershaft and part way over top of pulleys located near the floor driving hoop re-saw and planer; a solid resting strip over slabs, strips to extend to south side of saw table, so that when slabs are being cut off they will remain on strip; allow no minor not in your emyloy around factory; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in future report all accidents as they ocquir. Partially complied.
- No. 62—Alvordton Brick and Tile Works (Alvordton), July 15, 1896—Provide a substantial railing on north side of gear wheels of drain tile machine: cover or countersink all projecting set-screws in collars on shafting. Compiled.



- No. 68—Montpelier Butter and Cheese Manufacturing Co. (Montpelier), July 85, 1896—Provide belt-shifters for all shift-belts; cover or countersink all projecting set-screws in collars on shafting. Not reported as compiled.
- No. 65—W. S. Boon (Montpelier), July 15, 1896—Provide new pulley on main lineshafting to take the place of one made of leather: cover or countersink all projecting set-screws in collars on shafting; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 69—H. B. Franks (Montpelier), July 15, 1896—Provide belt-shifters for shift-belts driving large planer; cut off all protruding ends or bolts in driving pulley and main lineshaft driving large planer; provide a loose pulley and belt-shifter for belt driving rip-saw, so saw can be stopped when not in use. Not running. Factory closed.
- No. 70—Montpelier City Mills (Montpelier), July 15, 1896—Provide casing in front of gear-wheels mashing inward on upright shaft located in basement. Compiled.
- No. 71—Kelly Woolen Mills (Edgerton), July 22, 1896—Provide belt-shifters for all shift-belts and keep same in use, allow no employe to use hand or stick to shift belts. Complied.
- No. 72—H. Kruse (Edgerton), July 22, 1896—Provide belt-shifters for all shift-belts and saw-guards for rip-saws and keep same in use; a loose pulley and belt-shifter for rip-saw so that same can be stopped when not in use; provide hood or cover for swing-saw, hood or cover to be fastened to frame work of saw and come down over front of saw as far as practicable; substantial casing around pulleys and shafting driving rip-saw cover or countersink all projecting set-screws in collars on shafting. Partially complied.
- No. 78—Briggs and Walter (Edgerton), July 22, 1896—Provide saw-guard for rip-saw and shaperguard for wood shaper and keep same in use; a guard over cut-off saw, made of gas pipe as instructed by the Inspector; provide substantial casing or railing along side of driving pulley and belt, casing to extend from wall to main shaft of engine, cover or countersink all projecting set-sorews in collars on shafting. Compiled.
- No. 74—Challenge Manufacturing Co. (Edgerton), July 22, 1896—Provide loose pulleys and beltshifters for all machines and saws, so they can be stopped when not in use; sawguard for rip-saw and keep same in use; also a guard over cut-off saw made of gaspipe as instructed by the Inspector. Gone out of business.
- No. 75—Stryker Manufacturing Co. (Stryker), July 22, 1896—Provide saw-guards for rip-saws and shaper-guards for wood-shapers and keep same in use; a guard in front of dish-saw on oar-turning machine; cover or countersink all projecting set-screws in collars on shafting; provide an exhaust system to carry away dust from tan bark grinding machine; properly fill out accident blank and report accident that happened to one of your employes some time since, and forward same to department, and in future report all accidents to department as they occur. Compiled,
- No. 76—Werum Novelty Co. (Stryker). July 22, 1896—Provide a safety strip for short planer, strip to be made of metal and to extend full length of table, bottom of strip to be a little above bottom of top roll, so that material can be fed beneath strip so as not to endanger hands of operator; a guard over cut-off saw, made of metal and fastened to frame-work of saw as explained by the Inspector to the man in charge; cover or countersink all projecting set-screws in collars on shafting; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur. Factory being remodeled.
- No. 77—J. D. Rumsey (Stryker), July 22, 1896—Provide substantial casing or railing along side of shafting and pulleys operating near the ground. Not reported as complied.
- No. 78—Fred Mignin (Stryker), July 22, 1896—Provide a substantial casing along side of driving pulleys and main belt of engine. Not reported as compiled.
- No. 79—Northwestern Milling Co. (Stryker), July 22, 1896—Provide a substantial casing or railing along side of driving pulley on main lineshafting in engine room. Compiled.
- No. 80—Telephone News (Pioneer), July 23, 1896—Cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.



- No. 82—Tri-State Alliance Printing Co. (Pioneer), July 23, 1896—Provide a casing or railing around large gear-wheel on large printing press, casing or railing to be on the side where press feeder stands. Not reported as complied.
- No. 83—Pioneer Milling Co. (Pioneer), July 23, 1896—Provide a substantial casing or railing along side of large fly-wheel of engine from main shaft to outside face of wheel; place a guard between gear-wheels and oil bearings on the side mashing inward, to prevent oiler from coming in contact with same; close up the doorleading from engine-room through wall into the basement of mill Complied.
- No. 84—Herzer Elevator Co. (Paulding), July 23, 1896—Cover or countersink all projecting setscrews in collars on shafting. Complied.
- No. 85—Con Ragan & Co. (Paulding), July 28, 1896—Provide belt-shifters for belts of sand-machine.

  Not reported as compiled.
- No. 86—Paul Weidman Flouring Mills (Paulding), July 24, 1896—Provide a casing around gearwheel on bolting-chest, as instructed by inspector; case in exposed belt operating through floor driving bolters, also main belt operating through first floor, easing to be not less than four feet high, in four and feed mill. Compiled.
- No. 87—Paul Weidman (Paulding), July 24, 1896—Provide belt-shifters for all shift-belts on heading jointers, allow no employe to shift belt with hand or stick: cover or countersink all projecting set-screws in collars on shafting; provide substantial casing or railing along side of main driving pulley and belt of engine, casing or railing to be located between engine bed and pulley: properly fill out accident blank and report accident that happened to one of your employessome time since and forward same to department, and in future report all accidents as they occur; remove Calin Sliger, fifteen years of age, from assisting to operate heading saw, also Louis Julian, fifteen years of age, from assisting to operate heading saw post notices of the hours of labor required a day of minors under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No 88—James Lynn (Paulding), July 24, 1896—Provide a substantial casing or railing around main belt and driving pulley of engine and drain tile machine, casing or railing to be located between pully and drain tile machine. Not reported as complied.
- No. 92—Carr & Smith (Antwerp), August 4, 1896—Case in main belt operating through floor, casing to be at least four feet high. Complied
- No. 98—Grover Hill Roller Mills (Grover Hill), October 2, 1896—Provide substantial easing or railing along side of driving pulley of engine; cover or countersink all projecting set-serews in collars on shafting; properly fill out accident blanks and report accidents that happened to three of your employes some time since and forward same to department, and in future report all accidents to department as they occur. Not reported as compiled.
- No. 100—N. E. Prentice (Grover Hill), October 2, 1896—Provide saw-guards for rip-saws and keep same in use; provide loose pulleys and belt-shifters for all machines, so that they can be stopped when not in use. Not reported as complied.
- No. 101--Lenhart Cooperage Co. (Grover Hill), October 2, 1896--Provide belt-shifter for belt driving heading jointer; remove John Bryant, aged thirteen, James Bryant eleven, Wilber Little, thirteen, and Orin Lambert, twelve, and in the future employ no minors under the age of twelve years at any time or for any purpose, or minors under the age of fourteen years during the time they are required by law to attend school post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 108—Gideon Brothers (McGill), October 2, 1896—Provide a hood or cover for swing-saw, hood or cover to be fastened to frame-work of saw and to come down in front of saw as far as practicable; substantial casing along side of driving pulley of engine, casing to be between truckway and pulley. Factory closed.
- No. 104—Parker & Reff (McGill), October 2, 1896—Provide substantial casing or railing on both sides of main belt from drain tile machine to engine. Not reported as compiled.
- No. 106—H. F. Schneiker & Co. (Payne), October 2, 1896—Cover or countersink all projecting setserews in collars on shafting; remove Guy Kite, aged 14, from working around dangerous machinery. Complied.



- No. 108—Payne Furniture and Manufacturing Co. (Payne), October 2, 1826—Provide saw-guards for rip-saws and keep same in use; hood for out-off saws, hoods to be made of metal and fastened to table back of saw, far enough so as not to interfere with the working of saw, and bent up over saws as far as practicable; belt-shifters for all shift-belts; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; sharper-guards for wood-sharpers and keep same in use; cover or countersink all projecting set-sorews in collars on shafting. Not reported as compiled.
- No. 109—Jacob Ream (Payne), October 2, 1896—Provide loose pulleys and belt-shifters for all machines not having same, so that machines can be stopped when not in use without throwing off belt; cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.
- No. 110—Payne Stave Co. (Payne) October 2, 1896—Properly fill out accident blank and report accident that happened to David Pope and forward same to department, and in future report all accidents as they occur; remove Alford Keitner, aged 12, as per the law in relation to employment of minors during time they are required to attend school. Compiled.
- No. 111—Z. H. Travis (Payne), October 2, 1896—Suspend a casing under large belt driving burr located in east end of building, casing to be a little wider than belt, with strips nailed on each side to stiffen casing and to be suspended from floor and timbers above large pulley on line shafting: cover or countersink all projecting set-screws in collars on shafting. Not reported as compiled.
- No. 112—J. S. Emigh Lumber Co. (Payne), October 2, 1896—Provide saw-guards for rip-saws and keep same in use; a substantial casing in front of bottom wheel of band-saw and some suitable protection in front of top-wheel to catch saw in case it should break or slip off top wheel; loose pulleys and belt-shifters for all machines not having same, so that they can be stopped when not in use without throwing belt off pulley; a hood over large cut-off saw, hood to be fastened to table far enough back so as not to interfere with working of saw; cover or countersink all projecting set-screws in collars on shafting. Not reported as compiled.
- No. 115—J. H. Magee (Briceton), October 2, 1896—Provide cover for swing-saw, cover to be made of metal and fastened to frame work of saw, and to come down over front of saw as far as practicable: a safety strip in front of feed-roll of short planer, strip to be made of iron and extend full length of roll and to be so fastened that the bottom of strip will be a little above bottom of top roll so that material can be fed beneath strip without endangering hands of operator; provide substantial casing around equalizing saw, as instructed by the inspector; cover or counter-sink all projecting set-screws in collars on shafting, remove William Hartwig, aged 18 William Turner, 11, Adolph Turner, 10, Delbert Turner, 18, John Dankleshon, 12, and Clyde Leffer, 12; and in the future employ no minors under the age of twelve years at any time or for any purpose, or minors under the age of fourteen years during the time they are required by law to attend school; post totices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 116—Joseph Tarult (Worstville), October 2, 1896—Provide a casing or railing around flywheel of engine, casing to extend from wall of building to orank-shaft; remove Frank Horner, aged 13, and Paul Martin, 12, as per the law to prevent the engagement of minors under the age of 14 at any employment during the time they are required by law to attend school; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 117—Eagle Stave Works (Latty), October 2, 1896.—Provide belt-shifters for all shift-belts; casing around equalizing saws to prevent employes coming in contact therewith extend railing along side of main belt of engine and around fly-wheel pit to main shaft. Complied.
- No. 118—Edwin Bell & Sons Co. (Broughton), October 16, 1896.—Provide a substantial casing or railing along side of belt and pulley of engine driving saw-mill, casing or railing to extend from main shaft to wall; belt-shifters for all shift-belts; substantial hand-railings on runways used by ollers in oiling shafting; remove N. Workman, aged 13, assisting to operate cylinder stave cutter, and in the future employ no minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc.; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.



- No. 119—J. L. Preston (Melrose', October 16, 1896.—Provide saw-guard for rip-saw and keep same in use; belt-shifters for all shift-belts not having same; cover or countersink all projecting [set-screws in collars on shafting; substantial casing along side of main belt driving saw-mill saw near passageway to basement; a hood or cover over cut-offsaw used for cutting up slabs, as instructed by the Inspector. Partially compiled.
- No. 120—Wheeler Brothers (Melrose), October 16, 1896—Provide substantial easing or railing along side of main driving belt from engine to wall; belt-shifters for all shift-belts not having same; cover or countersink all projecting set-screws in collars on shafting; a protection around saws on pointer and lapper. Compiled.
- No. 121—Wheeler Brothers (Melrose), October 16, 1896—Provide substantial casing or railing around large fly-wheel and crank of stave cutter, also around and over equalizing saws, to prevent employes coming in contact therewith; cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of miners in your employ under the age of eighteen years, in each room where employed, and keep a record of all such miners. Partially compiled.
- No. 122—Buckeye Stave Co. (Continental), October 16, 1896—Provide substantial casing or railing around driving pulley and main belt of engine, easing to extend from engine to wall, also around and over equalizing saws to prevent employes coming in contact therewith; remove Harrison Mullnix, aged 18 years; D. Butler, 18; Lloyd Butler, 11; Edward Ruemele, 18; George Ruemele, 11; Harvey Clapper, 18; Arthur Furgson, 18; and Walter Covey, 10, and in the future employ no minors under the age of twelve years at any time for any purpose, or minors under the ege of fourteen during the time they are required by law to attend school; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as compiled.
- No. 124—A. Morris (Continental), October 16, 1896—Provide substantial casing or railing around fly-wheel and belt of engine; saw-guard for rip-saw and keep same in use. Not reported as complied.
- No. 129-J. H. Belford, Sons & Rimer (Columbus Grove), October 21, 1896-Provide a hood or cover for cut-off saw, hood to be made of metal and fastened to framework of saw and to come down over front of saw as far as practicable. Factory being remodeled.
- No. 130—D. C. Shank (Columbus Grove), October 21, 1896—Provide saw-guards for rip-saws and keep same in use. Factory not in operation.
- No. 133—Buckeye Stave Co. (Columbus Jrove), October 30, 1895—Cover or countersink all projecting set-screws in collars on shafting; properly fill out accident blanks and report accidents that happened to George Tate. John Johnson and Jesse Shaw, and forward same to department, and in future report all accidents as they occur; remove William Shettlemire, aged 14 years. George Mumea, 15, and Arthur Downing, 13, as per the law 40 prevent the engagement of minors under the age of sixteen years at any employment whereby their lives and limbs may be endangered, etc. Partially complied.
- No. 186—Grove Mills (Columbus Grove), October 30, 1896—Cover gear-wheel driving elevator lineshaft, cover to be placed on side of wheels mashing inwards, also gearing on boltingchest on second floor; provide substantial easing or railing around stationary engine next to bolier; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 142—Clover Creamery Co. (Ottawa) October 30, 1896—Provide belt-shifters for all shift-belts; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 143—Ottawa Flour Mills (Ottawa). October 30, 1896—Provide a guard in front of gear-wheels mashing inward driving elevator lineshaft, guard to be placed next to oil bearings; substantial casing or railing along side of driving pulley of engine, casing or railing to extend from engine shaft to face of driving pulley in basement. Compiled.
- No. 145—H. D. Ream (Ottawa), November 28, 1896—Provide saw-guards for rip-saws and keep same in use; place a substantial casing in front of lower wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off. Not reported as complied.
- No. 146—Gander Co. (Ottawa), November 23, 1896—Provide hood or cover for swing-saw, hood to be made of sheet iron and to be fastened to frame-work of saw, same to come down over front of saw as far as practicable. Complied.



- No 149—Ottawa Electric Light Co. (Ottawa), November 23, 1896—Provide casing or railing along side of driving pulley, from wall to main lineshaft, casing to be placed above main shaft of stantionary engine, present railing is too low and frail for good service; railing along both sides of belts of Westinghouse dynamo to main lineshafting; also railing along east side of belt of T. H. dynamo to main lineshaft. Compiled.
- No. 157—O. E. Townsend & Co. (Leipsic), November 23, 1896—Provide saw-guard for unguarded rip-saw and keep same in use; belt-shifters for all shift-belts; guard or hood for swing-saw, same to be made of sheet iron and fastened to framework of saw and to come down over front of saw as far as practicable; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 158—Leipsic Light, Heat and Power Co. (Leipsic), November 23, 1895—Provide railing along east side of belt from are dyname to and along side of driving pulley of stationary engine; railing along west side of belt from dyname to stationary engine bed. Compiled.
- No. 159—A. F. Easton (Leipsic), November 23, 1896—Provide substantial easing or railing around driving pulley of stationary engine and main belt. Mill not in operation.
- No. 160—Buckeye Stave Co. (Leipsic), November 23, 1896—Provide a substantial casing or railing on both sides of fly-wheel and belt of stationary engine. casing to be above main shaft of stationary engine; substantial casing around equalizing saws, to prevent employes coming in contact therewith; remove John Frehse, aged 11 years, and Frank Frehse, 13 years, as per the law in relation to the employment of minors under fourteen years of age, during time they are required by law to attend school; remove Earnest Russell, aged 14 years, working around machinery, as per law to prevent engagement of minors under age of sixteen years at any employment whereby their lives and limbs may be endangered, etc. Compiled.
- No. 161—Huber & Spray (Leipsic), November 23, 1896—Provide belt-shifters for all shift-belts, and in future allow no employe to shift belts with hands or sticks. Not reported as complied.
- No. 164-W. C. Miller & Son (Leipsic), November 23, 1896—Cover or counteraink all projecting set-screws in collars on shafting. Not reported as complied.
- No. 167—O. E. Townsend & Co. (West Leipsic), November 23, 1896—Provide belt-shifters for all shift-belts, and in future allow no employe to shift belts with hands or stick. Factory closed.
- No. 172—Cover & Bruen (Crosswell), November 23, 1896—Provide substantial casing around equalizing-saw to prevent employes coming in contact therewith. Factory moved.
- No. 178—F. N. Ellis & Co. (Glandorf), November 23, 1896—Provide guard over cut-off packing-saw guard to be made of gas-pipe bent over saw and fastened to framework of saw, as explained to employe in charge at time of inspection; cover or countersink all projecting set-screws in collars on shafting: extend floor up to driving pulley of stationary engine and main belt, and place railing on floor when extended, as explained by Inspector. Compiled.
- No. 175—Charming Roller Mills (Glandorf', November 23, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 176—Buckeye Stave Co. (Avis), November 23. 1896—Provide substantial casing around equalizing-saws to prevent employes coming in contact therewith; cover or countersink all projecting set-screws in collars on shafting; remove Emma Brown, aged 12 years, and Sherbon Prentice, aged 13, as per the law to prevent the engagement of minors under fourteen years of age curing the time they are required by law to attend school. Compl.ed.
- No. 177—Buckeye Stave Co. (Kalida), November 23. 1896—Provide substantial casing around equalizing-saw, to prevent employes coming in contact therewith; cover or countersink all projecting set-screws in collars on shafting; remove William Sheary, aged 13, as per the law to prevent the engagement of minors under age of fourteen years at any employment during the time they are required by law to attend school Not reported as complied.

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# TABLE V-FIFTH DISTRICT-FACTORIES INSPECTED.

## AUGLAIZE COUNTY.

For changes ordered see note with corresponding number following this table.	828		8 882 55
How often are em-	Weekly	Weekly	Weekly
Total number employe	<b>\$</b> 5~	42825055	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
erionil i	90	ο ! !	ω
Females.		7 8	
Males.	<b>\$</b> 5~	42532553	<b>∞</b> ₹5555540€40
Business or kind of manu- facturing.	Barrels wood lumber Foundry and machine shop.	Planing mill Laundrying Laundrying Spokes, bubs, etc Woolen blankets. Flour Machine shop. Hard wood lumber Straw board. Machinery and bollers.	Machinery Carriage wheels Churus Pitch fork handles Churus, wash machines, etc Furniture, etc. Funt and feed Planing mill, etc. Carriages, etc
Location.	2R.	Quinton street.  South street.  High street and water race.  South Pine street.  Spruce street Columbia and Chestnut streets.	Harrison street. Lima and Walkup streets. Lima and Salzer streets. Park street.
Names of firms and city, town or village.	MINSTER. Minster Coperage Co. Weinster Bris.	Sr. Mary's  Lizzle Hoffman  St. Mary's Steam Laundry  St. Mary's Steam Laundry  St. Mary's Steam Caundry  R. P. Gordon  St. Mary's Woolen Wanufacturing Co  St. Mary's Machine Co  Joseph Barrington  Woelern Straw Board Co  Western Straw Board Co	WAPARONETA. Wapakoneta Machine Co Wapakoneta Wheel Co. Standard Churn Co. Michael Hauss. Michael Hauss. Auchael Hauss. A Brown & Co. Swink Bros. & Co. Auchael Roles Mills. Theodore Dickman. Kreitzer Raigry Co. Home Milling Co.

Running two days per month.

### DARKE COUNTY.

_	Weekly	Weekly	Weekly 18	Weekly	Weekly
	<b>864448</b>	44ၿကီးထြကလေးစ	<b>ઝ</b> ઌ૽ૻૡ૽૾ 4 5 &	<b>4</b> © 10	
_		03	22		
	10.6.4.4.80	44000000000	%7545 <b>≈</b>	460	8 m m 8
	Saw mill Brick and tile Pranting mill Furniture From mill Saw mill	Iron fences.  Saw mill.  Machinery Saw mill.  Planing mill.  Iron fences.  Machinery Iron fences.	Furniture Handles. Wooden ware. Saw mill. Trunk slats. Feed and grinding mill.	Brooms Flour and feed mill	Saw mill
	High street. West street. West street. South Main street. Big Four Ry.	D. & U. Ry. depot	State Line street	Main street	PH.
ARCANUM.	Francis Fourman Morton Rodgers Morton Rodgers J. M. Mellinger S. Kaylor James Heck. James Heck.	Clarke Fence Co. Geo. W. Hartzell. C. O. Lacas. J. L. Klauss. J. L. Klause & Co. H. F. Klause & Co. Henry Miler Fence Co. Henry Black Co. Henr	rink Go.	Ansonia.  Rosswell Speelman W. J. Ross & Co	H. Hole & Co
	***********************************	*************	<u>១</u> ១ភភពព	2 = 3	Digitized by

Factory closed at present; only running half time during the year. +Closed indefinitely. ‡Running one day per week.

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### EXECUTIVE DOCUMENTS

TABLE V-FIFTH DISTRICT-FACTORIES INSPECTED-Continued.

### HARDIN COUNTY.

bered 10170: 101-6-6	For changes ord see note with c sponding numbe lowing this tabl	88		
-шэ	How often are ployes paid?	888	,	Weekly Semi-mo Semi-mo Semi-mo Monthly Weekly Semi-mo
ployed	Total number em	888858		5284462020
ė,	Minors.	eo eo		2-
Number employed.	<b>L</b> emsjes	es 00		1
X I	Males.	828838		€\$£\$446\$₽\$4₽\$
,	Business or kind of manu- facturing.	Chairs	JUNTY.	Flour and feed  Engines and threshers  Planing mill  Re Boller feeders, gas engines.  Planing mill  Farm implements, etc.  Fleverfe light and power.  Flour and feed  Laundrying  Malleable and brass castings  Malleable and brass castings
	Location.	NON.	MARION COUNTY.	ON   On   On   On   On   On   On   On
	Name of firm and city, town or village.	KENTON.  Scioto Purniture Co. Champion Iron Co. Ohio Machine Tool Co. Kenton Hardware Co. Win. Campbell Toledo & Ohio Central Shops.		MARION.  Marion Milling Co.  Hubber Mandfacturing Co.  Hubber Mandfacturing Co.  Prendergast Lumber and Coal Co.  Marion Lumber and Coal Co.  Marion Lumber and Coal Co.  Marion Lumber and Coal Co.  Marion Lumber and Coal Co.  Implement Mandfacturing Co.  Marion Eleveric Light and Power Co.  J. C. Anthony.  J. C. Anthony.  Marion Tool Co.  Marion Malleable fron Go.  Marion Malleable fron Go.
	Xumber:	882384		***************************************

Factory closed.

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_	70		63		Weekly		90		_	12 Weekly 46		Semi-mo 58  Weekly  Semi-mo		16 Weekly
-	4-01		en		-000K				_	850 or 0.4		8000	 7	
	Planing mill.	•	Flour and feed		Elevator and feed mill	;	Flour and feed	UNTY.		Staves and heading		Barrel hoops	Butter tubs	Flour mill
								MERCER COUNTY		South Mill street. Walnut street. Reservoir bank. Mill and Washington streets.		Pearl street. Market street. C. J. & M. R. R.	C. J. & M. R. R. Main and Mill streets.	
LABUE.	Joseph Slauser G. C. Allinger	AGOSTA.	Johnston, Rusler & Co	PROGPECT.	Miller, Jones & Co	GREEN CAMP.	Hone & Leach		CRLINA.	H. Butter Estry & Stephenson Hole& Fanger W. H. Berry Milling Go Celina Machine Works	ROCKFORD.	Rockford Hoop Co. J. W. Uhrleh. W. Chrief Milling Co. W. H. King.	 Creamery Manufacturing Co	
_	900		131		88238	į	25			\$4328		22.52	8.2	•

TABLE V-FIFTH DISTRICT-FACTORIES INSPECTED-Concluded, SHELBY COUNTY.

				ž	Number employed.	ė	bjoleq	-01	lered -orre- -lol re
	Name of firm and city, town or village.	Location.	Business or kind of manufacturing.	Males.	Femsles.	StoniM	Total number em	How often are e	For changes ord see note with c sponding numbe sowing this tab
	BOTKINS.								
\$ C	Politins Stave Works	Pike street	Spoke factory.	27 80		63	7∞.	Weekly	8
ME	Botkins Spoke and Bending Works	Oak	Spokes and rims			2	4 6	::	8
	ANNA.								
\$=&	110 Gump and Fogt. 111 Martin & Jones. 112 Lewis Kaw.		Hard wood lumber Butter Flour	10 4 80			70.480	Weekly	011
	SIDNEY.								
Un C	Sidney Broom Co	Clinton St. and East avenue	Вгоошѕ	8128		24	ដន	Weekly	
50	J. N. Anderson.		Spokes,	33	ľ	•	2	***	
1	Wagner Manufacturing Co.			:8		8	28	;	
<	American Steel Scraper Co		-	84	Æ	=	8 5	Semi-mo	£ 5
	A. P. Wagner				3		:2	Weekly	
2 23 2 25 2 25 2 25 2 25 2 25 2 25 2 25	Sidney Carriage Body Co Sidney Pole and Shaft Co.	_				61	<b>23</b>		<u></u>
200	Buckeye Churn Co		Churns, etc				នខ		
000	Philip Smith Sidney Hollow-ware Co		44.00	22		ľ	22	: :	
$T_{i} \simeq$	Sidney Wheel Co	Shelby street	Carriage wheels,	<b>= 6</b>	:	24	21	:	<u>-</u>

\*Not running steady. +Factory closed. ; Factory running one-third of time.

WYANDOT COUNTY.

			88 88	88	8.3
			Weekly 28 Monthly 28 Weekly 80	Weekly Monthly	Weekly 67 Monthly 88 Semi-no
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_			04		13 5 80 8
			64		
	•0		24.000.44	<b>⇔</b>	
	Flourand feed mill 6 6 10 10 10 10 10 10 10		Gas engines	Planing mill Planing mill Flour mill.	Saw and planing mill. Flour and feed mill
	Near Big Four Station N. O. R. R. N. O. R. R.		CO.		
CARBT	24° A. W. McConnell	UPPER SANDUSKY.	27° Comins Manufacturing Co 29° Layton. Beary & Co 29° Listeric Light Co 30° John Sheaty 30° John Sheaty 30° John Sheaty 30° Ster Bross. 30° Stell Casket Works.	NEVADA.         Planing mill.           34° S. Beaver.         Planing mill.           35 Orwiler & Armstrong.         Planing mill.           36 Nevada Miling Co.         Flour mill.	SYCAMORE. 37 J. A. Petty 38 Taylor Bros. 38 McArthur & Grafter
-	A. W. McConne W. H. Snyder Carey Bending	מ	Comins Manufi Layton, Beary Chizens, Elect John Sheuly Ingard & Frate Kerr Bros	S. Beaver Orwiler & Arr Nevada Millin	J. A. Petty Taylor Bros McArthur & G

\* Factory closed.

### FIFTH DISTRICT-FACTORIES.

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### DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ISSUED AND DATE OF ISSUE.

- No. 4—Trump & Frees (Arcanum), October 6, 1896—Provide a substantial casing in front of bottom wheel of band-saw. Complied.
- No. 6—Arcanum Milling Co. (Arcanum), October 6, 1896—Case in belt operating through first floor at foot of stairs, also belt operating through floor near office. Complied.
- No. 12—J. L. Kilgore & Co. (Arcanum), October 6, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 18—P. Kuntz & Wright (Greenville), October 6, 1896—Case in countershafts, belts and pulleys on second floor driving universal wood-worker, cut-off and fig-saw. Complied.
- No. 18—Koontz\*Sons (Union City), October 6, 1896—Case in all countershafts, belts and pulleys operating near floor. Not reported as complied.
- No. 20—Hook Brothers Manufacturing Co. (Union City), October 6, 1896—Place a railing around rear part of fly-wheel pit; case in all exposed belting operating through floor; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 22—Samuel L. Carter & Sons (Union City), October 6, 1896—Cover cog-gearing on sandpaper machine; case in countershafts, belts and pulleys operating near floor driving self-feeding rip-saw. Compiled.
- No. 28—John Parent & Co. (Union City), October 6, 1896—Suspend casing under driving belt at passage way leading to engine-room, so that employes will not come in contact with belt. Compiled.
- No. 28—Layton, Beary & Co. (Upper Sanduaky), October 8, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 30—John Shealy (Upper Sandusky), October 8, 1896—Provide shaper-guards for wood-shapers and keep same in use; properly adjust saw-guard to rip-saw and keep same in use; provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Complied.
- No. 25—Orwiler & Armstrong (Nevada), October 8, 1896—Provide substantial easing or railing around main driving-belt of engine; cover or countersink all projecting set-screws in collars on shafting; provide saw-guards for rip-saws and keep same in use; a hood or cover for swing-saw, hood or cover to be made of metal and fastened to framework and come down over front of saw as ar as practicable. Not reported as compiled.



- No. 36—Nevada Milling Co. (Nevada), October 13, 1896—Provide a substantial casing or railing around fly-wheel and driving-pulley of engine; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 37--J. A. Petty (Sycamore) October 8, 1896--Provide a hood or cover for swing-saw, hood or cover to be made of metal and fastened to frame work and come down over front of saw as far as practicable; provide saw-guard for rip-saw and shaper-guards for wood-shapers, and keep same in use; cover or countersink all projecting set-screws in collars on shafting; provide an adjustable cover for jointer, fastened; to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; case in all belts operating through the floor; case in main belt in engineroom near grind stone and shaft driving saw in saw-mill department. Not reported as complied.
- No. 38—Taylor Brothers (Sycamore), October 8, 1896—Case in all exposed gearing throughout mill. Compiled.
- No. 42—Verner & Anderson (Ansonia), October 8, 1896—Cover or countersink all projecting setscrews in collars on shafting; provide a casing in front of bottom wheel of band-saw. Complied.
- No. 49—Estry & Stephenson (Celina), October 13. 1896—Provide saw-guard for rip-saw and keep same in use; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur. Not reported as compiled.
- No. 51--W. H. Beery Milling Co. (Celina). Case in driving-belt where it operates through first and second floors. Not reported as complied.
- No. 58—Rockford Hoop Co. (Rockford), October 8, 1896—Provide a guard for drag or out-off saw, as instructed by the Inspector: properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 57 Creamery Manufacturing Co. (Coldwater), October 14 1836—Properly fill out accident blank and report accident that happened in your establishment some time since and forward same to department, and in future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 58—G. C. Weiser (Coldwater) October 14, 1896—Case in driving belt operating through first and second floors, the same as on first floor. Compiled.
- No. 59—Kenter & Wilson (Fort Recovery), October 14, 1896—Provide a loose pulley for belt driving planer; cover belt at door leading to engine-room to prevent employes coming in contact therewith. Compiled.
- No.63—Minster Cooperage Co. (Minster), October 14, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 64—Weimer Brothers (Minster), October 14, 1896—Provide saw-guard for rip-saw and keep same in use. Not reported as complied.
- No. 65—Dues & Herkenhoff (Minster), October 14, 1896—Provide saw-guard for rip-saw and keep same in use; a substantial casing in front of bottom wheel of band-saw. Not reported as complied.



- No. 66—Elizabeth Hoffman (St. Mary's), October 14, 1396—Provide saw-guard for rip-saw and keep same in use; a casing in front of bottom wheel of band-saw. Complied.
- No. 68—St. Mary's Spoke Works (St. Mary's) October 14, 1896—Suspend casing under driving beltoperating over passageway on first floor; properly fill out accident blank and report
  accident that happened to one of your employes some time since and forward same
  to department, and in future report all accidents as they occur; post notices of the
  hours of labor required a day of minors in your employ under the age of eighteen
  years, in each room where employed, and keep a record of all such minors.
  Complied.
- No. 72—Joseph Barrington (St. Mary's), October 14, 1896—Suspend casing under main driving-belt operating over passageway in basement. Not reported as compiled.
- No. 77—Marion Manufacturing Co. (Marion), October 14, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 78—Prendergast Lumber and Coal Co. (Marion), October 14, 1896—Provide saw-guards for rip-saw and shaper-guard for wood-shaper, and keep same in use; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Complied.
- No. ?1—Marion Lumber and Coal Co (Marion), October 14, 1896—Provide shaper-guard for wood-shaper and keep same in use; an adjustable cover for jointer, fastened to the surface plate or bed of jointer covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Complied.
- No. 85—J. C. Anthony (Marion), October 14, 1896—Case in countershafts, belts and pulleys operating wringer at foot of stairs. Complied.
- No. 88—Marion Steam Shovel Co. (Marion), October 14, 1896—Provide substantial railing on inside of large pulley driving dynamos. Compiled.
- No. 89-Scioto Furniture Co. (Kenton), October 14, 1896-Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 90—Champion Iron Co. (Kenton), October 14, 1896—Provide a casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch the saw in case it should break or slip off top wheel; saw-guard for rip-saw and keep same in use; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked. Not reported as complied.
- No. 96—Wapakoneta Wheel Co. (Wapakoneta), October 22, 1896—Provide a guard for drag-saw as instructed by the inspector. Complied.
- No. 98--Michael Hauss (Wapakoneta), October 22, 1896--Post notices of the hours of labor required a day of minors.in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 99—M. Brown & Co. (Wapakoneta), October 22, 1896—Provide a saw-guard for rip-saw and keep same in use. Complied.
- No. 100—Swink Brothers & Co. (Wapakoneta), October 22, 1896—Provide a guard for rip-saw and keep same in use. Complied.



- No. 104—Home Milling Co. (Wapakoneta), October 22, 1896—Case in main driving belt operating through floor. Complied.
- No. 105—Joseph Wiss (Wapakoneta), October 22, 1895—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 106—Botkins Stave Works (Botkins', October 22, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors Not reported as complied.
- No. 109—Botkins Spoke and Bending Works (Botkins). October 22, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as compiled.
- No. 110—Gump & Fogt (Anna), October 26, 1896—Provide a guard for drag-saw as instructed by Inspector. Complied.
- No. 114—Donaldson & Bryant (Sidney), October 26, 1866—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 115-J. N. Anderson (Sidney). October 25, 1896—Case in exposed belting operating through floor; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- \* No. 116—Slusser & McLean Scraper Co. (Sidney), October 26, 1896—Provide a casing in front of bottom wheel of band-saw. Compiled.
  - No. 117—Wagner Manufacturing Co. (Sidney), October 26, 1896—Provide an exnaust system to carry away dust from grinding and polishing-wheels. Not reported as complied
  - No. 118—American Steel Scraper Co. Sidney), October 28, 1896—Provide a substantial casing in front of bottom of band-saw. Compiled.
  - No. 119—Underwood Whip Co. (Sidney), October 26, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.\*
  - No. 121—Sidney Carriage Body Co. (Sidney), October 26, 1896—Provide saw-guard for rip-saw and keep same in use. Complied.
  - No. 122—Sidney Pole and Shaft Co. (Sidney), October 26, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
  - No. 123—Buckeye Churn Co. (Sidney), October 26, 1896—Provide saw-guard for rip-saw and keep same in use; case in countershafts, belts and pulleys operating near floor driving planer. Complied.
  - No. 127—Sidney Wheel Co. (Sidney), October 25, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Factory closed.
  - No. 181—Johnston, Rusler & Co. (Agosta), October 29, 1896—Case in belt in basement operating corn-sheller; also main belt where operating through first and second floors. Not reported as complied.



- No. 136—Prospect Electric Light Co. (Prospect), October 29, 1896—Provide substantial railing around north side of main belt. Compiled.
- No. 137—Home & Leach (Green Camp), October 29, 1896—Case in fiy-wheel of engine between flywheel and passageway leading to basement; also main shaft in basement where employes pass over in oiling; case in main belt operating through floor. Complied.

# TABLE VI-SIXTH DISTRICT-FACTORIES INSPECTED.

## CARROLL COUNTY.

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	Business or kind of manu- facturing.		Flour and feed. Electric light. Shale paving brick. Printing office.		Building supplies		Building suppliesFlour		Building supplies	
	Location.		Canal street West Carrollton		South Malvern					
	Name of firm and city, town or village.	CARROLLTON.	M. & K. Hardesty Carrollton Electric Light Co Carrollton Granite Brick Co. (Limited) J. F. Lawler	MALVERN.	Fisher & Buell Malvern Clay Co Ross & Wilson Cauton and Malvern Fire Brick Pavink Co Myers Hartford Clay Co	A UGUSTA.	Crook & Iddings	SHERRODSVILLE.	Met'ariney & Bontrager	
	Number.		* 8 8 2	_	82889		£ 5		<u> </u>	

\*Operation suspended indefinitely.

TABLE VI-SIXTH DISTRICT-FACTORIES INSPECTED-Continued.

## COLUMBIANA COUNTY.

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	Business or kind of manu- facturing.		Plain and dressed lumber. Pig iron Pottery and white ware Rolled steel Pig iron Pig iron Pig iron Circle light and power. Circle light and feed Flour and feed		Sewer pipe. Fire clay products. Fire clay products. Sush and doors. Fiour and feed. Electric light and power. Frour and feed. Fire brick and tile. Machinery. Woolen cloth.		Flour and feed	Flour and feed
	Location.		East of town. West of town. Chestnut street. Front, street.		Co			
	Name of firm and city, town or village.	LRETONIA.	Mellinger Lumber Co. Salem Iron Co. Curt wright & Green. Curt yright & Green. Same Leetonia Electric Light and Power Co. Crescent Machine Co. Rankin Brothers.	LISBON.	Ohio Sewer Pipe Co United States Fre Clay Co Beaver Th' Plate Co Haker and Tritl A. H. Aldridge New Lishon Gas Co Hunter & McCord Excelsion Fre Clay Co Hugh Wright & Sons New Lishon Woolen Manufacturing Co	WASHINGTONVILLE	John Heckert	SALINRVILLE. G. M. Henderson
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Chimney tops	Fire brick Flour and feed Folling stock repairs Fire brick Sewer pipe and terra cotta Steam laundry Electric light Sheet iron and steel	Flour and feed	White ware General repairing Drain tile and sewer pipe Frour and feed	Flour and feed	Flour and feed Wooden handles Carriages and buggles Floures and tanks Fumps Steam rollers Steam rollers	Stoves and castings Pumps Dressed lumber Architectural sheet metal Stoves and castings
Main street	South of town			East of town.		Depot street.
Cone Fire Clay Co	Silvers Bros. H. C. Shaffer. Pennsylvania R. R. Co. Buckeye Brick Co. Vulcan Clay Co. John Lyth & Sons. Stark & Fraser. Wellsville Electric Light Co. Wellsville Plate and Sheet Iron Co. Stevenson & Co.	KENNINGTON. H. O. Reeder	East Palestine Pottery Co Roberts Machine Co Taggart & Co Son Cuming & Co S. P. McClure	Sam C. Scott	Theiss Kucele & Co. Columbiana Handle Works.  N. M. Fuhrman. Columbiana Boiler Works Columbiana Pump and Machine Co. Enterprise Manufacturing Co.	Nictor Stove Co.   Store Co.
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TABLE VI-SIXTH DISTRICT-FACTORIES INSPECTED-Concluded.

# COLUMBIANA COUNTY-Concluded.

Location
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Homer Lauchillin McCaln Brothers McCaln Brothers McCaln Brothers McCaln Brothers McCaln Brothers McCaln Brothers McCalculum Brothery Co. C. Thompson Pottery Co. C. Thompson Pottery Co. C. Thompson Pottery Co. C. Thompson Pottery Co. C. Thompson Pottery Co. C. Thompson Pottery Co. C. Maint and Cook streets. Kwaint and Cook streets. Kwaint and Cook streets. Kosuita and Cook streets. Robinson and College streets. B. McNinol Pottery Co. B. McNinol Pottery Co. Broad was and Forrest streets.

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White ware	OUNTY.	Butter	JUNTY.	Brick and tile tiour and feed Building supplies. Laundry y Pumping station. Electric Light. Builders supplies.	OUNTY.	Cigars
Broadway and Market streets East end  Walnut street	HARRISON COUNTY	Warren street.  Muskingum and Spring streets  Warren street	HOLMES COUNTY	North Millersburg	STARK COUNTY	173 S. Market street
Knowles, Taylor & Anderson Co.  East End Pottery Co.  East End Pottery Co.  Fotters Mining and Milling Co.  Knowles, Taylor & Knowles Co. (white granite ware dept.  Knowles, Taylor & Knowles Co. (china and white ware dept).  A. J. Boyce.		Cadiz Creamery Co Cadiz Water Works Ho maker Ward Bros A Magery Sout & Sont & Sont Control of Control		MILLERBBURG.  Millersburg Brick and Tile Co.  Hecker, Miller & Co.  J. H. Mitchell & Son. Holmes County Infirmary.  Holmes County Nater World.  Millersburg Recetric Light Co.  Findlay, Adams & Co.		CANTON.  J. H. Bechel. Gobeen Manufacturing Co Knight Manufacturing Co Pittsburg Cigar and Stogle Co.
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### SIXTH DISTRICT—FACTORIES . .

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 3-Knight Manufacturing Co. (Canton), January 6, 1896—Case in driving pulley, operating near floor driving key seating machine in machine shop. Compiled.
- No. 6—Salem Iron Co. (Lectonia), February 10, 1896—Properly fill out accident blank and report abcident that happened to one of your employes some time since and forward same to department, and in the future report all accidents to department as they occur. Not reported as compiled.
- No. 8—Cherry Valley Iron Co. Rolling Mill (Leetonia), February 10, 1896—Provide guard between muck and pinion housings; properly fill out accident blanks and report accidents that happened to five of your employes some time since and forwardsame to department. and in future report all accidents as they occur. Compiled.
- No. 9—Cherry Valley Iron Co.—Blast Furnace—(Leetonia), February 10, 1896—Repair wooden platform around crossheads and place a substantial hand-railing thereon. Complied.
- No. 12—Rankin Brothers (Lectonia), February 11, 1896—Provide a board cover for conveyer on fourth floor, as instructed by the Inspector. Compiled.
- No. 14—United States Fire Clay Co. (Lisbon', February 20, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 15—Beaver Tin Plate Co. (Lisbon), February 20, 1896—Provide better ventilation in washhouse by placing an exhaust or disc fan in wall. Complied.
- No. 16—Baker & Tritt (Lisbon), February 20, 1896—Provide belt-shifters for all shift-belts; case in all belts and pulleys operating near the floor. Compiled.
- No. 19-Hunter & McCord (Lisbon), February 20, 1896—Provide a substantial casing or railing around fly-wheel of engine; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 22-New Lisbon Woolen Manufacturing Co., February 20, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 27—Cone Fire Clay Co. (Salineville), February 25, 1896—Cover exposed portion of gearing in miliroom; case in driving belt operating through engine-room door. Compiled.
- No. 29—Standard Pottery Co. (Salineville), February 26, 1896—Provide a substantial railing around grinding-pan and keep same in position at all times; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 30—Sliver Brothers (Wellsville), February 25, 1896--Provide a substantial casing or railing around exposed portion of fly-wheel of engine. Not reported as complied.
- No. 31-H. C. Shaffer (Wellsville), February 26, 1896--Provides substantial casing or railing around fly-wheel and main belt of engine. Complied.
- No. 22--Pennsylvania R. R. Co. (Wellsville), February 26, 1896--Place a casing in front of topwheel of band-saw to catch saw in case it should break or slip off. Compiled.



### INSPECTOR OF WORKSHOPS AND FACTORIES.

- No. 25.—John Lyth & Sons (Wellsville), Maysh 5, 1896.—Provide substantial casing or railing around large driving pulley in engine-gopm. Complied.
- No. 26.—Stark & Fraser (Weilfyillé), March 5, 1896.—Provide substantial casing or railing around fly-wheel of engage. Of mpligd.
- No. 37—Wellsville Electric Might Co. (Wellsville), March 5, 1896—Provide a substantial casing around fly-wheel and large gulley of engine driving dynamo, also along each side of main belt. Compiled.
- No. 44—John Cunning & Co. (Hast Palésting), March 5, 1896—Case in gearing on purifier on second floor. Compilés.
- No. 45--S. P. McClure (East Palestine, March 6, 1896--Provide belt-shifters for all shift-belts; case in all countershafts, belts and pulleys operating near the floor; provide guard for rip-saw and keep same in tag. Compiled.
- No. 46—Samuel C. Scott (New Waterford), March 26, 1896—Provide a substantial casing or railing around fly-wheel of engine. Compiled.
- No. 48—A. E. Bretz (New Waterford, March 26, 1896—Provide subtsantial casing or railing around fly-wheel of engine. Complied.
- No. 53—N. M. Fuhrman (Columbiana), March \$5, 1896—Case in all countershafts, belts and pulleys operating near the floor, especially hub boring maching; provide a substantial casing in front of lower wheel of band-taw; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 54—Columbiana Boiler Works (Columbiana), March 26, 1896—Replace casing or railing around gearing of rivet bunch and bevel shears; case in all exposed gearing on rolls; properly fill out accident blank and report socident that happened in your establishment sometime since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 55—Columbiana Pump and Machine Co. (Columbiana), March 26, 1896. -Provide a substantial casing or railing ground countershaft of boring machine, operating near floor in machine shop. Partially compiled.
- No. 58—Victor Stove Co. (Salén), March 31, 1896—Cover beveled gearing on small drill press, provide a substantial casing or railing around fly-wheel of engine. Compiled.
- No. 59—Deming Co. (Salem), Mårch \$1, 1896—Provide an exhaust fan in rattling-room, as explained by the Inspector; case in all countershafts, bolts and pulleys operating near floor driving drill-presses; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed. Partially complied
- No. 60—John M. Stratton (Salem), March 31, 1896—Case in all countershafts, belts and pulleys operating near floor. Complied.
- No. 61—W. H. Mullins (Salem), March 31, 1896—Cover gearing on blank cutting press; provide a substantial casing or railing around fly-wheel of engine. Complied.
- No. 62—J. Woodruff & Sons (Salem) March 31, 1896—Provide saw-guard for rip-saw and keep same in use; case in driving pulley operating through floor near door of polishing department operating polishing machine: properly fill out blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 63—Grôve Co. (Salem). March 31. 1896—Provide substantial casing or railing around fly-wheel of engine; case in driving pulley of mixer; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 64—Buckeye Engine Co (Salem), March 31, 1896—Provide a substantial casing or railing around driving pulley of Gray planer; casing in front of bottom wheel of band-saw; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially compiled.



- No. 66-J. B. McNab (Salem), March 31, 1896-Cut off of case in protruding end of engine shaft.

  Complied
- No. 67--Wedtzel & Leimer (Salem), March 31, 1896--Case in driving pulley of wood planer; provide a guard for rip-saw and keep same in use. Partially complied
- No. 72—Salem Church Organ Co. (Salem), April 16, 1895—Provide guard for rip-saw and keep the same in use. Complied.
- No. 73—Salem Wire Nail Co. (Salem), April 16, 1896—Provide saw-guard for rip-saw and keep same in use; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 74—W. J. Clark & Co. (Salem), April 16, 1896—Case in all exposed gearing on punches, bending machines and shears. Complied.
- No. 75-W. H. Mullins (Salem), [April 16, 1896—Provide saw-guard for rip-saw and [keep same in use. Compiled.
- No. 76-Vaughn-Bonsall Co. (Salem). April 16, 1896—Place a substantial easing in front of bottom wheel of band-saw and some suitable projection in front of top wheel to catch saw in case it should break or slip off top wheel; case in belt operating drill. Complied.
- No. 77-Kay & Foltz (Salem), April 16, 1896-Case in main belt operating through first and second floors, casing to be at least four feet high. Complied.
- No. 81—Wallace & Chetwynd (East Liverpool), April 22, 1896—Case in pulley operating jigger.

  Complied.
- No. 82—Harker Potterv Co. (East Liverpool), April 22, 1896—Case in main belt in engine-room, casing to be at least six feet high. Not reported as complied.
- No. 84—Globe Pottery Co. (East Liverpool), April 26, 1896—Case in belt operating through second floor. Compiled.
- No. 87—Union Co-operative Pottery Co. (East Liverppol), April 26, 1896—Case in gearing of pug mill, also belt operating through second floor. Complied.
- No. 93—East End Pottery Co. (East Liverpool), April 29, 1896—Provide a substantial casing or railing around fly-wheel and main belt of engine. Compiled.
- No. 94—Potters' Mining and Milling Co. (East Liverpool), April 29, 1896—Provide an exhaust system to carry dust away from spar-mill. Order held in obeyance until another inspection can be made.
- No. 95—Knowles, Taylor & Knowles Co. (East Liverpool), April 29, 1896—Case in driving pulleys of all jiggers, also driving pulley of pug mill in white granite ware department. Complied,
- No. 96—Knowles, Taylor & Knowles Co. (East Liverpool), April 29, 1896—Case in Clay elevator to the height of fourteen inches above the floor; provide a substantial casing around main belt of engine in china and white ware department. Complied.
- No. 97—A. J. Boyce (East Liverpool), April 29, 1896—Provide substantial casing or railing around fly-wheel of engine. Complied.
- No. 101—Malvern Clay Co. (Malvern). August 7, 1896—Provide casing around exposed gearing on repress. Complied.
- No. 106—Crook & Iddings (Augusta), August 14, 1896—Case in cog-gearing on crate machine; provide saw-guards for rip-saws and keep same in use; a substantial casing or railing around fly-wheel of engine. Compiled.
- No. 107—W. G. Metzel & Sons (Augusta), August 14, 1896—Provide a protection in front of gearwheels on bolting-chest, also around chain gearing on end of flour dresser. Complied.
- No. 108—McCartney & Bontrager (Sherodsville), September 8, 1896—Provide a substantial casing.
  or railing around fly-wheel of engine; saw-guard for rip-saw and keep same in use
  Compiled.



- No. 111—Millersburg Brick and Tile Co. (Millersburg), September 3, 1896—Case in cog-gearing on pug-mill. Factory closed.
- No. 112—Hecker, Miller & Co. (Millersburg), September 3, 1896—Case in cog-gearing on south end of flour bolts Nos. 12 and 13. Complied.
- No. 113-J. H. Mitchell & Son (Millersburg), September 3, 1996—Provide saw-guards for rip-saws and keep same in use. Removed to new building.
- No. 114—Holmes County Infirmary (Millersburg), September 4, 1896—Provide a substantial casing or railing around exposed belts and wheels, also around cog-gearing of ironer. Complied.
- No. 116—Millersburg Electric Light Co. (Millersburg), September 4, 1896—Provide automatic selfclosing gates to enclosure of machinery, prohibit any one from entering enclosure except employes. Compiled.
- No. 117—Findlay, Adams & Co. (Millersburg), September 3. 1896—Provide saw-guard for rip-saw and keep same in use.
- No. 119—Cadiz Water Works (Cadiz). November 24, 1896—Enclose pumping engine with railing and provide automatic (self-closing gates) for entrance and place thereon notice forbidding entrance and enforce order: provide means for heating boiler and engine-rooms during cold weather. Compiled.
- No. 120—Holmes & Ward Brothers (Cadiz), November 24, 1896—Place substantial railing around flywheel of engine; case in cog-gearing on fence machine. Compiled.
- No. 121-H. A. Rogers (Cadiz', November 24, 1896—Case in fly-wheels on each side of printing press; cut off or drive in flush with shafting protruding keys. Complied.
- No. 124—Cadiz Electric Light and Power Co. (Cadiz, November 24, 1896—Place guard-rail around awitch-board, so arranged as to prevent any one from coming in contact with live wires. Compiled.

# TABLE VII-SEVENTH DISTRICT-FACTORIES INSPECTED.

### ATHENS COUNTY.

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Z I	Males.	-			nww-54⊕489w5¥∞∞×∞	80.5
	Business or kind of manu- facturing.	Photographs	OUNTY.		Repair shop. Flour etc. Landry Repair shop Cars and ear whe.ls. Woolen goods and hoslery. Plantur mil. Batter. Clears Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Batter. Flour etc. Batter. Flour etc. Batter. Flour etc. Batter. Batter. Batter. Flour etc. Batter. B	Stoves and castings Soap
	Location.	Main street.	BELMONT COUNTY		Hunts addition Near Gardner street. Near Gardner street. South Chestaut street. South Chestaut street. Near South Chestaut street. Near Bouth Chestaut street. Near Bouth Chestaut street. Near B. &. O. R. R. South Chestaut street. Arch street. Arch street. Arch street. And and Chestaut street. Main and Chestaut street.	Water street Twentieth street
	Name of firm and city, town or village.	ATHENS.		BARNESVILLE.	Charles McCroba Bonnel & McKever Milling Co Barnesville Steam Laundry Gro, D. Hall Watt Mining Car Wheel Co. Star Woolen & Hosiery Co. Hague, Woodward & Co. Hague, Woodward & Co. Hague, Woodward & Co. Hague, Woodward & Co. Hague, Woolener Barnesville Creamery Heed Brother.  Tak A Horders Harnesville Electric Likht & Gas Co. Tak A Horder & Barnesville Electric Likht & Gas Co.  Tak A Horder & Sharnesville Enerprise Hannon from the Sharnesville Enerprise Sauturday Whestone Hant & Shry Williams Brothers.	Beliaire Stove Co Standard Soap Co Rodefer Brothers
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Artificial ice.  Battles.  Bottles.  Pit Iron and steel.  Pit Iron and steel.  Pit Iron and steel.  Building material as tambed camel work  Enameled Ironware  Cikurs.  Pitunbing.  Carriages and wagons.  Water works  Water works  Laundry.  Laundry.  Gass and electricity  Semi-Weekly Tribune.	Puper	Flour and feed.  Repair shop, etc. (llass tableware. Electricity Iron, steel and tin plate. Fruit jars.	Heer Rolling mill, castings, etc Drolling etc Stoves, text and barrels Figure from Barrels Figure from	Flectricity Flour and feed Paper Paper
Indian run. Indian		W. Pike street Ret. C. P. R. R. & C. L. & W. Near West Wheeling Lincoln avenue	Jefferson street. First street. First street. First street. First street. Jefferson and Second streets. North street. First street. Jefferson street. Hanover street. Second and Wahnut streets.	Sugar street
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TABLE VII—SEVENTH DISTRICT—FACTORIES INSPECTED—Continued.

BELMONT COUNTY-Concluded.

Name of firm and city, town or village.  BETHERIA.  Anartins addition  T. M. Kildow  T. M. Kildow  H. & O. depot.  G. W. Farra.  Burris & Wiley  Hunt & McFadden.  MONROE CO	Location.	Business or kind of manu- facturing.					ə	O.
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George Holmes		Flour and feed	93	•	-	2 Irregular		:
Woodstried.					_			
George Richner & Sons. B. Z. C. depot B. Z. C. depot	B. Z. C. depot.	Flour and feed	20.4			f Irregular		
LEWIBVILLE.								
Peter Archer	Main street	Flour and feed	<b>84</b>		-	2 Monthly Weekly		

### MORGAN COUNTY.

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	Sash, doors, etc	Plows, cultivators, etc	Sash. doors, etc	Pianing mill	Creamery butter	Flour and feed	UNTY.		Flour and feed	Planing mill
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MCCONNELSVILLE.	MoConnelsville Sash and Door Co E. M. Stanbery & Co G. B. Hann F. P. Cly Kroons Miling Co McConnelsville & Malta Electric Light Co Cochran Bros Shafer Bros Tannehil Bros J. W. Rusk MALTA	Brown-Manly Plow Co. A. W. Walker & Co. Chester Palmer Corner, Wanker & Davis Co. A. V. Dunsmoor Humphrey Sash & Door Co. G. S. Hoffman	T. J. Balley Wood & Kinsey StockPort.	A. Walker Schob & Pierrot	Pennsville Creamery Co	F. J. Filler		BRIL VALLEY.	W. H. & J. B. Newton	S. Mills & Sons
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TABLE VII.—SEVENTH DISTRICT—FACTORIES INSPECTED—Concluded.

NOBLE COUNTY -Concluded.

### SEVENTH DISTRICT FACTORIES.

### DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.

- No. 3—Barnesville Steam Laundry (Barnesville), July 10, 1896—Replace belt-shifters on shift-belts and keep same in use. Complied
- No. 6—Star Woolen and Hosiery Co. (Barnesville), July 10, 1896—Provide suitable seats for use of female employes, and permit the use of such seats at all times when such use will not interfere with the duties for which they are employed; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No 7--Hague, Woodward & Co. (Barnesville), July 10, 1896--Provide saw-guards for rip-saws and keep same in use. Compiled.
- No. 13—Barlow & Sons, (Barnesville), July 10, 1896—Provide saw-guarus for rip-saws and keep same in use; keep floor clear of all rubbish; properly fill out accident blank and report accident that happened to one of your employes, resulting in death, some time since, and forward same to department, and in future report all accidents as they occur; employ no minor under the age of twelve years in any capacity whatever, and no minor under fourteen years more than eight hours per day, during the time they are not required by law to attend school; do not allow any minor under the age of sixteen years to be employed at dangerous machinery; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 20--Standard Soap Co. (Bellaire). July 14, 1896--Provide a substantial easing or railing around fly-wheel of engine; post notices of the hours of labor required a day of minors under eighteen years of age, in each room where employed, and keep a correct record of all such minors. Complied.
- No. 25—Bellaire Steel Co. (Bellaire), July 14, 1896- Provide guard-rail at side of plate rollers; fill out accident blanks and report all accidents that may have happened in your establishment since the 15th of November last, and in future report all accidents as they occur. Complied.
- No. 28--Novelty Stamping Co. (Bellaire). July 15, 1896—Keep a correct record of all minors in your employ under the age of eighteen years; properly fill out accident blanks and report all accidents that may have happened in your establishment since the 15th of November last, and in the future report all accidents as they occur. Complied.
- No. 29—Stewart Enamel Co.—Bellaire, July 15, 1896-Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors; properly fill out accident blank and report all accidents that may have happened in your establishment since the 15th of November last, and in future report all accidents as they occur. Complied.
- No. 30--Joseph Burtoft (Bellaire). July 15, 1896--Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a correct record of all such minors. Complied.
- No. 33--City Water Works (Bellaire), July 15, 1895--Provide a substantial easing or railing around pinion-wheel in power-house, also around pitman in the old works. Complied.
- No. 34--Bellaire Foundry Co. (Bellaire), July 15-1896--Provide a substantial casing or railing around fly-wheel of engine. Complied.



- No. 85--United States Laundry (Bellaire), July 15, 1896--Provide a substantial casing or railing around fly-wheel of engine, also around pulleys operating extracter; provide belt-shifters for all shift-belts; provide suitable seats for the use of female employes and permit the use of such seats at all times when such use will not interfere with the duties for which they are employed. Compiled.
- No. 38--D. Wagner (West Wheeling). July 31, 1896--Provide substantial casing or railing around engine in paper-room, also around belt and wheels in same room. Not reported as compiled.
- No. 41—Crystal Glass Co. (Bridgeport), July 31, 1896.—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 48—Ætna Standard Iron and Steel Co. (Bridgeport), July 31, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 44-Bridgeport Glass Co. (Bridgeport), July 31, 1896—Provide a substantial easing or railing around tiy-wheel of engine; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 50--Spence, Baggs & Co. (Martin's Ferry), July 31, 1896--Provide saw-guard for rip-saw in pattern-goom and keep same in use; an exhaust system to carry away dust from emery-wheels. Compiled.
- No. 53--Municipal Electric Light Plant (Martin's Ferry), July 31, 1896--Provide substantial railing along each side of belts driving dynamos, would suggest that you make the railings from one and one-fourth inch gas-pipe. Complied.
- No. 56—Laughlin Nail Co. (Martin's Ferry), July 31, 1896—Post notices of the hours of labor required a day of minors in your employ under the ag of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 57—Ohio City Planing Mill (Martin's Ferry), July 31, 1896—Provide saw-guard for rip-saw and shaper-guard for wood-shaper and keep same in use Complied.
- No. 59—Novelty Mold Works (Martin's Ferry, July 31, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 69—Burris & Wiley (Bethesda), August 18, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 78—S. Mills & Sons (Caldwe.l), September 2, 1896—Provide saw-guards for rip-saws and keep same in use. Complied,
- No. 85—Braister Brothers (Summerfield', September 2, 1896—Provide a substantial casing or railing around large fly-wheel; saw-guard for rip-saw and keep same in use. Compiled.
- No. 87—Nathan House (Batesville) September 2, 1896—Provide substantial casing or railing around fly-wheel of engine Complied.
- No 92-G. P. Hann (McConnelsville), September 28, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 107—T. J. Bailey (Chester Hill), October 7, 1896—Provide a substantial casing or railing around fly-wheel of engine; a casing in front of bottom wheel of band-saw, and suitable protection in front of top wheel to catch saw in case it should brake or slip off. Compiled.
- No. 111—Pennsville Creamery Co. (Pennsville), October 12, 1896—Provide a substantial casing or railing around fly-wheel of engine; belt-shifters for all shift-belts. Compiled.

# TABLE VIII—EIGHTH DISTRICT FACTORIES INSPECTED.

## DELAWARE COUNTY.

Name of firm and city, town or village.   Location.   Business or kind of manu-facturing.     Delaware Clay Manufacturing Co.   18 Fast William street.   Chairs.   Printing.   25     Delaware Clay Manufacturing Co.   21   22   23   24     Delaware Clay Manufacturing Co.   22   23   24     Standard Block Co.   23   24   24     Standard Block Co.   24   24   24     Standard Block Co.   24   24   24     Standard Block Co.   24   24   24     Standard Block Co.   25   24   24     Standard Block Co.   24   24     Standard Block Co.   24   24     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Block Co.   25   25     Standard Bloc					an X	Number employed.	ġ	pioyed.	-00	dered corre- for tol-
DELAWARE.   18 Fast William street   Sewer pipe, drain tile, etc.   29   17			Location.	Business or kind of manu- facturing.	Males.	Lemsjer.	.eroniM	Total number em	How often are en	For changes or see note with sponding number lowing this table
Columbus Bloyele Co.   Columbus Bloyele Co.	20-	DELAWARE.  Delaware Clay Manufacturing Co  Delaware Chair Co	ils East William street		384	-5%	-7	<u> చేరి</u> ఉ	Weekly Semi-mo Weekly	
Graham & Black Co.         E. Becker Brewing Co.         Property of E. Becker Brewing Co.         Property of E. Brewery         Property of E. Brewery         Property of E. Brewery         Property of E. Brewery         Property of Earling Co.         Property of Ear	_		FAIRFIELD	COUNTY	_	-	-	_		-
COLUMPY.   COLUMPY.   COLUMPY.   COLUMPY.   Shoes Shoe Manufacturing Co.   194-98 East Rich street.   Shoes		Graham & Black Co. E. Becker Brewing Co. Sears Bros. W. H. Galiger & Co. Lancaster Shoe Manufacturing Co. Lancaster Shoe Co. D. Lancy & Son. J. B. Orman & Bros. Excelsior Steam Laundry. James McAnesple & Co. John Darfus.				<b>35</b> ₹ 1-	82	758488	Weekly Semi-mo	
Col. CM BUS.         Col. CM BUS.         194-98 East Rich street.         Shoes.         30         30           Columbus Bicycle Co.         Shoes.         Experimental City Dairy Co.         185-97 East Third avenue.         Bit berine.         26         2           Coptal City Dairy Co.         185-97 East Third avenue.         185-97 East Third avenue.         28         2           Coe & Spencer.         29         20         20         20			FRANKLIN C	COUNTY.						
Jones Shoe Manufacturing Co. Shoes Shoes Manufacturing Co. Shoes S		COLUMBUS			_	_				_
		Jones Shoe Manufacturing Co Columbus Bicycle Co Capital City Dairy Co Todd & Co.	194-98 East Rich street 310-30 Dublin avenue 185-97 East Third avenu 449 West Broad street	100000000000000000000000000000000000000		80		8%8 × 8	Weekly	- 10

TABLE VIII.—EIGHTH DISTRICT—FACTORIES INSPECTED.—Continued.

# FRANKLIN COUNTY.- Continued.

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Barrels Tallow, etc	Stair building	Plano sundries	Builder's mill-work	Mill work	Wooden boxes	Faper Doxes	Tente and awnings	Printing and engraving	Printing and binding	Planing mill, etc	Pulled wool, etc	Carriage lamps	Electric power motors	Machine shop	Laundrying	Landaning machinery	Rollers	Electric hydraulic elevative	Mantels, office fixtures, etc.	Steel skeins	Wire fences	Kalli mont	Foundry & machine works	Shoes	Patent steam pumps.	Patterns.	Mill-work	Planing mill	Dance confidence	Machine works	Wood mantels.	Nickel plating	Laundrying	Bollers	Cigar moulds	Builder's mill-work	Machine chon	Steel cellings	Builder's mill-work	Tables and trucks	Bicycles
	West State street	2112	130 East Rich street	Walnut and Lazelle streets		37% North Front street	65.71 Fact Cay etreet			Short avenue and Cana		_	45% Vine street	_	os os	Tong and Dead streets	Broad and Soloto streets	98 West Broad street	210%	:			112 Leves Street	347 " Sat Dioda surce	21-3 Scioto street.	-	Water street		101 Trace I can grace	1	· UZ	Rear 155 Nort	-	_	449% West Broad street		200			170 West Naghten street	330 Dublin ave.
Jacob Lapp Columbus Melting Co	Engle Foundry R. Bair	Henry Holtzman & Son	Echipse Wood Works			Frankenberg Bros	Moduler-Paters Tent & Awning Co	Cherington Printing & Engraving Co.	Nitschke Bros		Thomas Lewis & Son		Buckeye Electric Repair Works	J. C. Hearn & Co	Turner C Dulling & Co.	Theor I amoder Co	Bourer Bros. & Co.	Eaton Machine Works	Walker, Smith & Co	G. Schreyer	Frost Wire Fence Co	Columbus Paint Co	D Hayden Saddlery Hardware Co	Haldward CO	Weinman Machine Works.		Andrew Earl	Elliot & Maclean	Dundon & Bergin	- Ire	olumbus Mantel. Tile & Marble Co.			Scioto Boiler Works	Columbus Cigar Mould Co	John Morgan Jones		Kinnear & Gager Co	Kelton & Brown	James Pleukharp & Co.	Columbus Bieyele Co

\*Second Inspection.

TABLE VIII-EIGHTH DISTRICT-FACTORIES INSPECTED-Continued

# FRANKLIN COUNTY-Continued.

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	Business or kind of manu- facturing.		Stair and veranda works	Plating works	Forging	Paints, etc	Stereotype plates	Cigars .	Butterine	Sheet metal stamping works	7,	Iron works	1  -	_	Planing mill	Carpentering	Upholstering	Machine work	Main office	Blacksmithing	Machine work	Bollers	Engine house	,-	_	Builders' mill-work
	Location.		108 West Spring street.				313-15 North Front street		185-97 East Third Avenue	35)-56		Third and Nachten streets	7 East Gay street	130-34 East Long street	orth Twentieth street				:				Worth High care			97 East Swan street
	Name of firm and city, town or village.	Col.umbus-Continued.	Jones & Lewis	A. G. Chapman	Ohio Carriage Forging Co	Orr & Abbott Paint Co	American Press Association	Columbus Cigar Factory	pital City Butterine F	A Gul	N. E. Lovejoy	C. R. Morris & Co.	Charles Bryson	Schroth & Potter	P., C., C. & St. L. R. R Co. 'planing mill dept.)	Same (carpenter shop)	Same (uppolistering dept)	Company (machine shon)	Same (office)	Same (blacksmith shop)	Same (machine shop)	(boiler departm'nt)	Ties greet founder	_	Kilbourne & Jacobs Manufacturing Co	Moore & Knox

\*Second Inspection

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East End of Lincoln street	Fourth and Goodale streets	Last First avenue	45-8 West Filth Byenue	400 On Page 1246th areas	77 41 Fact flown ctroot	Neel and Doutweitheate	90 90 Court Duck Ct	of oth Court I was it was a	242-246 South Lazene street	Ziz-284 North Fourth street	Spring and Fark streets	Livingston avenue and Canalst.	North High street	210 South High street		012	47 East State street		Z Z Z	87 North Phindetreet		20 East Broad street	45 West Gay street	50 North Front street	29-39 West Gay street	815 North Third street	18	92', North High street	94 North Sixth street.	924 North High street	West Fitth avenue	Tone promise station	Lane ave and C. H. V. & T. P.	54 Lynn street	High and Gay streets	115 South Pearl street	123% East Long street.	1931 Front Third Street	60.49 Fast Spring street.	39 West Spring street.	35%	31-33	2881/2 North High street		P	15 East Gay street	108 North High street.	108.7	Rear 23 North High street
Kilbourne & Jacobs Manfacturing Co	M. D. Cummings	Vous olde I manufacturing Co	North Side Laundry	John Murphy & Comments	Model Steam Laundm	United States Writings (1)	Columbia Storm Laurder	Commons Steam Laudury	Feruna Drug Manuracturing Co		James Offier & Sons	William M. Taylor.	Buckeye Burry to	Carl G. Jahn	Westbote Co	Democratic Call	Spant & Glenn.	Sunday Morning News	Object Comment	Crystal Washing Machine Co.	Berlin Printing ('o	Columbus Evening Press.	Batterson Decorating House	Ohio Novelty Hat Works	Snyder, Chaffee & Co.	Theodore Wolfram & Co	Columbus Trunk and Hand Luggage Co	Morrison & Co.	Columbus Brass Co	Myers Bros	Excelsion Seat Co.	Columbus Sewer Fipe Co.	Separate & Co.	Surgay & Co.	Columbus Evening Dispatch	Trautman Bros	Eugene Gallagher	Columbus Bank Note Co.	Columbus Printing Co.	Frank A. Stallman	Cott & Evans	Hess & Walcutt	Lawrence Press Co	Goodmin & Co	Hunn Daint Manufacturing Co	Champlin Printing Co.	Hann & Adair.	H. Butterworth & Sons	Bee Manufacturing Co

TABLE VIII-EIGHTH DISTRICT-FACTORIES INSPECTED-Continued.

# FRANKLIN COUNTY—Concluded.

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em-	How often are paid?	Semi-mo	W eekly	: 10	Weekly		;	Semi-mo	Meakly			Weekly & mo Weekly		Weekly		Weekly	:
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ž	Males.	89	~ ~ ~		_	- 00		∞ €						352			
-	Business or kind of manu- facturing.		Blunk books Nickle plating	Brass castings			Edge tools			Bottling beer					2		_
	Location.	West Main street	317 South High Street	73	10wn and wan streets	Gas North High street, High and Mound streets	Mound and Front streets	463 South Scioto street	504 South Front street.	Front and Brewery streets	ă	526-14 Foot of Main street	267 West Main street	240-50 West Main street	West Mount street	Mound, Main and Short Riveels. 259 East Livingston avenue 181 West Town street	16-24 East Livingston avenue.
	Name of firm and city, town or village.	COLUMBES-Concluded.	Capital City Bieyele Co. Rugeles-Gale Co Rhoades Abuufacturing Co	T Shilling	Coleman & Felber	J. A. Violet. Union Printing Co.	P. Kinnel	Ohio Plating Works	Charles W. Buchsieb	Same (bottling dep't)	Born & Co (Bottling House)	Nicholas Schlee & Son Eagle Foundry	George Janton & Sons		Hulse-Anderson Co.	Coumbus Capinet Co.	John Immel & Son
	Z umber	2:	25.6	<u> </u>	i.	2 3	5.3	8	និត្ត	38	និន្តិ	85	8	30.5	225	2 17 2	218

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INSPECTOR OF	WORKS	SHOP AND FACTORIES.	923
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Waste Cut stone Carper renovating Furnaces Soft soap Cut stone Cut stone Furnaces Slaughtering, etc. Burgles Furnaces Cut stone Cut stone Furnaces Soda and mineral waters. Sausage Bollers.	UNTY.	Cigars	Planing mill
Short avenue. West Main street. West Main street. SM-586 South High street. South of Mound street. South of Mound street. South of Mound street. West side. West Mound street. South of Mound street. South of Mound street. South of Mound street. Star Street. Broad and Frank street. Broad and Frank street. Davis avenue. Green and River streets.	LICKING COUNTY	120 East Main street.   Cigars    Cigar	West High street
229 Fish Stone Co. 229 Fish Stone Co. 229 Fish Stone Co. 229 H. Borcher. 220 Co. 220 F. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton & Co. 220 E. C. Janton Hothers. 220 E. C. Janton Hothers. 220 E		NEWARK.   NEWARK.	E. A. Florence
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### EXECUTIVE DOCUMENTS.

TABLE VIII-EIGHTH DISTRICT-FACTORIES INSPECTED-Concluded.

### UNION COUNTY.

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Number em- ployed.	Females		
N L	Males.		58000 <b>4458</b> 8
	Business or kind of manu- facturing.		Doors, sash and blinds. Kitchen furniture Plano stools, etc. Laundrying Printing. Flour Spokes Doors, sash and blinds. Butter tubs.
	Location.		South Main street.
	Name of firm and city, town or village.	MARYSVILLE.	Marysville Lumber Co.  Bausch Manufacturing Co.  Bays Chair Co.  Marysville Steam Laundry.  A. J. Hare  Marysville Merchant Mill.  St. Mary Spoke Works  C. F. Lentz.
	Number.		22222222222222222222222222222222222222

### EIGHTH DISTRICT FACTORIES.

### DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.

- No. 1—Jones Shoe Manufacturing Co. (Columbus). November 30, 1895—Provide a casing in front of shafting operating under sewing-machine tables, as instructed by inspector. Compiled.
- No. 5—Coe & Spencer (Columbus), February 17, 1896—Cover or countersink all projecting setscrews in collars on shafting; properly fill out accident blank and report accident that happened to one of your employes sometime since and forward same to department, and in the future report all accidents as they occur. Compiled.
- No. 12—Columbus Architectural Iron Works (Columbus, March4, 1896—Provide a substantial casing or railing around fly-wheel of engine; an extra hanger for lineshafting in basement, hanger to be placed near coupling of shaft. Compiled.
- No. 14—Scioto Buggy Co. (Columbus), March 4 1896—Case in shafting under sewing-machine tables; cover or countersink all protruding set-screws in collars on shafting. Complied.
- No. 17—Columbus Coffin Co. (Columbus), March 4, 1896—Properly adjust saw-guards to rip-saw and shaper-guards to wood-shapers and insist upon employes using them at all times when guards can be used; provide a casing in front of lower wheel of bandsaw; repair and put in good working condition exhaust system; properly fill out accident blank and report accident that happened to W. D. Maddox and forward same to department, and in the future report all accidents as they occur. Partially compiled.
- No. 24—U. S. Carriage Co. (Columbus), March 19, 1896—Provide a casing in front of bottom wheel of band-saw; an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives allowing only sufficient space between guard and gauge to admit material being worked; saw-guard for rip-saw and shaper-guards for wood-shapers and keep same in use. Building partially destroyed by fire; portion of order complied with.
- No. 26—Banner Laundry Co. April 14, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 27—Eclipse Wood Works (Columbus). April 14, 1896—Provide saw-guard for rip-saw and keep same in use Compiled.
- No. 28—Henry Knipfer (Columbus), April 14, 1896—Provide saw-guard for rip-saw and keep same in use. Complied.
- No. 34—Ohio Tool Co. (Columbus), April 14, 1896—Case in main belt operating through second floor in the plane department. Complied.
- No. 41—R. Bair (Columbus), June 3, 1896—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; properly fill out accident blank and report accident that happened to your son and forward same to department and in future report all accidents as they occur. Compiled.
- No. 42—Henry Holtzman & Son (Columbus), June 31, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a correct record of all such minors. Complied.

- No. 43—Eclipse Wood Works (Columbus), June 3, 1896—Provide saw-guard for rip-saw and keep same in use. Compiled.
- No 45—Henry Knipfer (Columbus) June 3, 1896—Provide saw-guards for rip-saws and keep same in use. Complied.
- No. 48—Wolfe Brothers Shoe Co. (Columbus), June 3, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 52—James H. Heyle (Columbus), July 9, 1896—Provide belt-shifters for belts driving planer and sticker. Complied.
- No. 56—J. C. Hearn & Co. (Columbus), July 9, 1896—Thoroughly cleanse and disinfect watercloset and keep same in good sanitary condition at all times. Compiled.
- No. 59—Troy Laundry Co. (Columbus), July 10, 1896—Provide automatic (self-closing) elevator gates at elevator openings on first and second floors. Complied.
- No. 65—Columbus Paint Co. (Columbus), July 9, 1896—Provide belt-shifters for all shift-belts.

  Complied.
- No. 76—Columbus Mantel Tile and Marble Co. (Columbus, July 10, 1896—Provide a casing in front of lower wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off top-wheel; a guard for re-saw, if saw is to be used, as instructed by inspector. Complied.
- No. 77-T. E. Collins (Columbus) July 9, 1896-Provide belt-shifters for all shift-belts. Complied.
- No. 78—Davis' Steam Laundry (Columbus), July 14, 1896—Suspend casing under main belt operating over passageway, as explained by the Inspector. Compiled.
- No. 87—C. T. Nelson & Co. (C olumbus), July 23, 1896—Provide casing beneath belting driving boring machine, casing to be wide enough to take in both belts with a side casing six inches up on each side. In hands of receiver.
- No. 89—Jones & Lewis (Columbus), July 23, 1896—Case in countershafts, belts and pulleys operating near floor; case in all exposed belting operating through floors; provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; provide a substantial casing or railing around fly-wheel of engine. Complied.
- No. 94—Robert A. McClure (Columbus), July 23, 1896—Provide belt-shifters for all shift-belts-Partially compiled.
- No. 98—N. E. Lovejoy (Columbus), July 81, 1996—Provide a subtantial casing in front of bottom wheel of band-saw. Compiled.
- No. 99—Capital City Straw Works (Columbus), July 31, 1896—Case in shafting operating sewing-machine on second floor. Complied.
- No. 114—Snider Brothers Lumber Co. (Columbus), August 7, 1896—Provide a substantial casing in front of bottom wheel of band-saw; belt-shifters for all shift-belts. Compiled.
- No. 116-Moore & Knox (Columbus', August 7, 1896--Provide belt-shifters for all shift-belts. Complied.
- No. 124--Model Steam Laundry (Columbus), August 13, 1896—Case in pulleys operating near floor driving collar machine. Compiled.
- No. 126—Columbus Steam Laundry (Columbus), August 13, 1896—Provide a substantial railing around driving belt of mangle on third floor; case in belts and pulleys of collar machine on second floor operating near floor. Complied.
- No. 140—Berlin Printing Co. (Columbus), August 26, 1896—Case in main belt operating through floor, casing to be at least four feet high. Complied.
- No. 171—Bee Manufacturing Co. (Columbus), August 26, 1896—Case in shaft operating near floor driving sewing-machine, also west end of shaft projecting beyond pulley. Compiled.
- No. 190--Lester Nutter (Newark), October 7, 1896--Provide a casing in front of bottom wheel of band-saw, and some suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel. Complied

- No. 211-Billow-Lupfer Co. (Columbus), October 13, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 212—Hulse, Anderson Co. (Columbus), October 13, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 221--A. Getz, Shoe Manufacturing Co. (Lancaster), October 26, 1896--Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 222-Lancaster Shoe Co. (Lancaster), October 26, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 223—Delancy & Son (Lancaster), October 26, 1896—Provide a substantial easing in front of bottom wheel of band-saw. Complied.
- No. 225--Excelsior Steam Laundry (Lancaster), October 26, 1896--Keep casing for gearing of collar and cuff machine in place at all times when machine is in operation. Compiled.
- No. 226—James McAnespie & Co. (Lancaster), October 26, 1896—Case in all exposed belts operating through floor; properly fill out accident blank and report accident that happened to one of your employes and forward same to department, and in future report all accidents as they occur; post notices of the hours of labor required a day of minors under eighteen years of age in your employ, in each room where employed, and keep a record of all such minors. Complied.
- No. 227-John Darfus (Lancaster), October 26, 1896-Case in counter-shafts, belts and pulleys operating near floor. Compiled.
- No. 233-C., H. V. & T. R. R. Co. (Columbus), October 27, 1896-Provide a substantial casing in front of bottom wheel of band-saw. Compiled.
- No. 236—Marysville Lumber Co. (Marysville), October 27, 1896—Provide belt-shifters for all shiftbelts. Compiled.
- No. 237—Rausch Manufacturing Co. (Marysville), October 27, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 238—Davis Chair Co. (Marysville), October 27, 1896—Provide belt-shifters for all shift-belts: post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Compiled.
- No. 245—C. F. Lentz (Marysville), October 27, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.
- No. 247—Denton Brothers (Columbus), November 2, 1896—Keep guards at elevator openings in place at all times. Compiled.
- No. 248—Banner Buggy Co. (Columbus', November 2, 1896—Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a record of all such minors. Complied.



# TABLE IX—NINTH DISTRICT—FACTORIES INSPECTED.

### BUTLER COUNTY.

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	Business or kind of manu- facturing.		Bicycles and steel edge tools Plug tobacco	Paper.	Manilla paper	Paner bars	Paper mill machinery	Flour and feed mill	Bicycles and steel edge tools	Tobacco.	Manilla paper	Machine shop	Laundrying	Printing and publishing	Wooden novelties	Electric light and power	Box factory and planing mill Printing	Printing and publishing	Pumps and boxes	raundrying
	Location.		Grand avenue and Hig Four Ky. Third, Second and Grimes sts	Fourth and Water streets	Third and Main streets	Water street	Third and Water streets	West Third street.	Grand avenue and Dig Four hy.	Sixth, Seventh and Canal sts.	Wardlow and Vandervere sts.	Alley between First & Sec. sts.	129-131 East Third street	6 Canal street	9-11	Canal and Clinton streets	Fifth and Park streets South Main street	Control of the state of the sta	Big Four Ry	South Main street
	Name of firm and city town or village.		acturing Co	Sabin-Robbins Paper Co	d Mfg.	(Gardner mills)	Co	C. B. Palmer & Co.	Minmi Cycle and Manufacturing Co.	Wilson & McCally Tobacco Co.	Wardlow-Thomas Paper Co	Middletown Machine Co.		0	Middletown Novelty Co	tric Light and Power Co				American Steam Laundry.
	Number				: 22 :	3.7	8:	£ 2	. Z.	32:	- 8 e	3	8.	: 8	38	38	38	33	<u>اء</u>	. l6

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	,	Wire goods, etc	Paper mill machinery	Paper	Flour mill machinery	Contract Comments	Casters, etc.	Wagons and plows	Bent wood-work.	Hube and enoline	Trans one spores	raper	Laundrying	Carriague ato	Mariting Car, Colonia	Machine snop	Printing and publishing		Patterns	Cooking monor	Coarca paper	Flour and reed mill	Furniture	Printing and publishing	.:	Flour and food mill	Cofee and lead	Sales ally locks	IN Ith It	ice and cold storage	Brewerv	Flour and feed mill	Engines and hollers	Tron bridges ate	Overalle nante of	Most pane, panes, coo.	Maturesses, pinows, etc	Baked Deans	Cider and vinegar	Hubs and spokes	Farm implements	Stoves and ranges	Carriages, bicycles, etc	Safes	Grav fron eastings	Laundry machinery	Dibbod andomests	Dienter mill	Paramis min	Fower nouse	Wooden jackers, skirts, etc.	registers, etc	Autographic registers	Car seals and machinery	Fublishing and printing
		Becket and Bender avenues	North Second street		197.121 North Water street				118-117	•	201-011	Front and Buckeye streets	2 East High street					:	3.5	Month Date of	יייייייייייייייייייייייייייייייייייייי			Court and Riley streets	42-44 Fast High street	11 South Water street	William Water attent	Militaine avenue	C and F rankin streets	Front street	-	Court street and C. H. & D. Rv.	Walnut str and C H & D Rv	Birdon et noot	Caranth and Wohnt etroote	Seventin and wallut streets	: 0	Zira South Seventh street	611 Central avenue	Walnut str. and C., H. & D. Ry.,	Seventh and Hanover streets	Hamilton and East avenues	1210 Central avenue	Grand Boulevard	Lincoln avenue	Safe avenue	Chartent and Dane around	So there and trast avenues	szu East avenue	Linden avenue		Symmer and Milliken avenues	Symmer avenue	Symmer and Zimmerman ave's.	High street
HAMILTON.		ing Co.		Lewis Snyder Sons Co	Huches Manufacturing Co.	Company No.	a willing manufacturing co		L. Deinzer & Son	J H Stanban & Son	The state of the s		Pearl Steam Laundry			E. D. CFUII	_	Brown & Whitaker	Louis Diemer Pattern Works	1 (Thumpion Chatad Dansa Ca	The state of the s	rammon and Eagle Mills	Sortman & Blum Co	Daily and Weekly Democrat Co	Republican Publishing Co	Hamilton Milling Co.	Manual & Tables O	Casharan Mahina Co	Southern Maturity Co	Hamilton Artificial Ice Co	Cincinnati Brewing Co.	Carr & Brown Co.	Empire Machine Co	Hamilton Construction and Tool Co	I A Sommers Manufacturing Co.	Emal: Salameta Manual Country Co	Frank Schautz	Jersey Facking Co	J. Pabst & Sons.	John Donges & Co	H. P. Deuscher Co		_	Mosler Safe Co	Hamilton Foundry and Machine Co	Best Machine Co.	Henry Misdenner	Part Ammed Obesies Mill	:	Hamilton & Lindenwald Electric Transit Co		namilion Autographic hegister Co.	Manufacture & Benninghoren		Jo D. Haney

# TABLE IX-NINTH DISTRICT-FACTORIES INSPECTED-Continued.

### CLINTON COUNTY.

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	Name of firm and city, town or village.	WILMINGTON.	Irwin Auger Bit Co		XENIA.	W. F. Copenhaver. H. W. Owens Gonnable, Harper & Co Hooven & Allison Co Xenis Shoe Manufacturing Co. Xenis Shoe Manufacturing Co. R. A. Kelly Co. R. A. Kelly Co. R. A. Kelly Co.		DAYTON.	Ohio Rake Co Crawford, Moditegor & Canby Co Beaver Soap Co.
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TABLE IX-NINTH DISTRICT-FACTORIES INSPECTED-Continued.

## Monrgomery County-Continued.

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	Name of firm and city, town or village.	DAYTON-Continued.	Dayton Gas Engine and Manufacturing Co.	Pasteur-Chamberland Filter Co	Dayton Electric Light Co.	-	Adam Schantz	Dayton Manufacturing Co	Simon Gebhardt Sons Co	Will. Frock & Sous	Gebhardt White Lead Co	N. Thomas		Bruns-Frank Co	W. P. Callahan & Co.	Dector Committee Seela Co.	Larlar Barlow & Co	arter-Crume Co	Miami Valley Box Factory	Gem City Boller Co	Auli Bros. Paper and Box Co	Gem Shirt Co.	Bayn r Distuing Co	:	Peter Kuntz Manufacturing Jo	Lowe Bros. Co	Dayton Spice Mill Co	Davis Sewing Machine Co

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TABLE IX-NINTH DISTRICT-FACTORIES INSPECTED-Concluded.

## Monreomery County-Concluded.

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	Name of firm and city, town or village.	DAYTON-Concluded.	A Cappel	Nixon & Costello Co	Bally Soap Co	Standard Press & Sign Co	Dayton Fruit Tree Label Co	Duckeye Fedice Co	Barri & Smith Car Co	C F Ware Coffee Co	Houck & Ely	W P Levis & Co	Thresher & Co	W. Foglesong		Control bremen ruonsumg nouse	T I Deben	American Greath Launder E F Case Dron 1	Davion Journal		Landon Printing Co	A. Britch	Sweetman's Printing House	German Newspaper Co	Johnson & Watson	Reynolds-Easton Co	Mull & Underwood	Dayton Machine Tool Co.	Central Pattern Works
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### NINTH DISTRICT-FACTORIES.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 1—Miami Cycle and Manufacturing Co. (Middletown), December 2, 1895—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 2—Fred J. Myers Manufacturing Co. (Hamilton), December 2, 1895—Provide saw-guards for all rip-saws and keep same in use; a substantial casing or railing around fly-wheel of engine; properly fill out accident blank and report accident that happened to Chas. Klein and forward same to department, and in future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as complied.
- No. 3—Black & Clawson Co. (Hamilton), December 2, 1895—Provide a casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch the saw in case it should break or slip off top wheel; properly fill out accident blanks and report accidents that happened to two of your employes some time since and forward same to department, and in future report all accidents as they occur; keep-a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 4—Lewis Snyder Sons Co. (Hamilton), December 2, 1895—Case in all beveled gearing mashing downward; properly fill out accident blank with accident that happened to one of your employes some time since and forward same to department and in future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 5—Hughes Manufacturing Co. (Hamilton), December 14, 1895—Provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; place a casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel; provide saw-guard for rip-saw and keep same in use; case in belt operating through first floor. Compiled.
- No 10—Lewis Snyder Sons Co. (Hamilton), December 14, 1895—Case in beveled cog-gearing mashing inward and downward; cover or countersink projecting set-screws in collars on shafting. Complied.
- No. 11—Pearl Steam Laundry (Hamilton), December 14, 1895—Cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.
- No. 14—Germania Publishing Co. (Hamilton), December 14, 1895—Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 15—Brown & Whitaker (Hamilton), December 14, 1895—Keep a correct record of all minora in your employ under the age of eighteen years. Complied.
- No. 16—Lewis Duemer Pattern Works (Hamilton), December 14, 1895—Provide saw-guard for rip. saw and keep same in use. Compiled.



- No 17—Champion Coated Paper Co. (Hamilton), December 15, 1895—Provide a substantial casing or railing around fly-wheel of engine; case in all belts and pulleys operating near floor; provide saw-guard for rip-saw and keep same in use: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 18--Hamilton and Eagle Mills (Hamilton', December 27, 1895--Post notices of the hours of labor required a day of minors in your employ under the age of eigeteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 20—Daily and Weekly Democrat Co. (Hamilton), December 27, 1895—Repair closet on second floor and reserve same for the exclusive use of female employes, placard door "for females only:" reserve closet on the first floor for the exclusive use of male employes; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors Compiled.
- No. 21—Republican Publishing Co. (Hamilton), December 27, 1895—Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 22—Hamilton Milling Co. (Hamilton), December 27, 1895—Case in main belt operating through second and third floors, easing to be at least three feet and six inches high. Complied.
- No. 23—Macneal & Urban Co. (Hamilton), December 27, 1895—Provide saw-guard for rip-saw and keep same in use; keep a correct record of minors in your employ under the age of eighteen years. Complied.
- No. 24—Sohngen Malting Co. (Hamilton), December 27, 1895—Provide a substantial casing or railing around fly-wheel of engine. Compiled.
- No. 27—Carr & Brown Co. (Hamilton), December 27, 1895—Case in belt operating through floor driving generating machine: case in upright shaft on first and fourth floors, casing to be at least four feet high; provide a substantial casing or railing around pulleys on north end of rolls on first floor: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 31—Frank Schantz (Hamilton). December 27, 1895—Case in countershafts operating under sewing-machine table; keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 32—Jersey Packing Co. (Hamilton), December 27, 1895—Provide substantial casing or railing around fly-wheel of engine; provide suitable seats for the use of female employes and permit the use of seats at all times when such use will not interfere with the duties for which they are employed; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 35—H. P. Deuscher Co. (Hamilton), December 27, 1895—Provide saw-guard for rip-saw and keep same in use; properly fill out accident blank and report accident that happened to H. Brinkman, and forward same to department, and in the future report all accidents as they occur. Complied.
- No. 36—F. & L. Kahn & Brothers (Hamilton), December 27, 1895—Properly fill out accident blanks and report accidents that happened to A. Winkiman and L. Harvey, and forward same to department, and in the future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially compiled.
- No. 37—Columbia Carriage Co. (Hamilton). December 27, 1895—Provide a substantial casing or railing around fly-wheel of engine: case in countershafting operating under sewing-machine table; provide automatic (self-closing) elevator gates at elevator openings on each floor; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.

- No. 39—Hamilton Foundry and Machine Co. (Hamilton), January 4, 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 40—Bess Machine Co. (Hamilton), January 4, 1896—Provide saw-guard for rip-saw and keep same in use: an adjustible cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked; safety device in front of top wheel of band-saw to catch saw in case it should break or slip off top-wheel: keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 41—Henry Niederauer (Hamilton), January 4, 1896—Case in shafting operating under sewingmachine tables: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 42—East Avenue Planing Mill (Hamilton), January 4, 1896—Properly adjust saw-guard on rip-saw and keep same in use: place a casing in front of bottom wheel of band-saw; provide an adjustable cover for jointer, fastened to the surface-plate or bed of jointer, covering the unnecessary exposure of jointer-knives, allowing only sufficient space between guard and gauge to admit material being worked: properly fill out accident blank and report accident that happened to Mr. Gassmann and forward same to department and in future report all accidents as they occur: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially compliance.
- No. 45—Hamilton Autograph Register Co. (Hamilton), January 27, 1896—Cover or countersink all projecting set-screws in collars on shafting; place on bottom of ladder used by oller in oiling lineshafting sharp iron points, to prevent ladder from slipping; post notices of the hours of labor required a day of miners in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 46-Krauth & Benninghofen (Hamilton), January 27, 1896-Cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years. Complied.
- No. 47—National Car Seal Co. (Hamilton), January 27, 1896—Cover or countersink all projecting set-screws in collars on shafting; place a casing in front of bottom wheel of bandsaw, and some suitable protection in front of top wheel to catch saw in case it should break or silp off top wheel: provide saw-guard for rip-saw and keep same in use; a substantial casing or railing around fiy-wheel of engine; properly fill out accident blank and report accident that happened to Kittie Schnipper and forward same to department and in future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially compiled.
- No. 51—Wrenn Paper Co. (Middletown), January 28, 1896—Provide substantial casing or railing around fly-wheel of engine as explained to the foreman. Compiled.
- No. 52—Tytus-Gardner Paper and Manufacturing Co. (Middletown), January 28, 1896—In Tytus mill case in all cog-gearing mashing downward; also belt operating near the floor near Porter and Allen engine; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 53—Tytus-Gardner Paper and Manufacturing Co. (Middletown', January 28, 1896—In Gardner mill case in all cog-gearing mashing downward, also gearing at stuffing boxes: repair railing at gangway side of machine; case in belt operating through second floor, casing to be at least three feet high; keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 54—Tytus-Gardner Paper and Manufacturing Co. (Middletown), January 28, 1896—In Ohio mill keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 57-McSherry Manufacturing Co. (Middletown), February 7, 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Compiled.



- No. 58—Miami Cycle and Manufacturing Co. (Middletown), February 7, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 60—Wardlow-Thomas Paper Co. (Middletown). February 7, 1896—Properly fill out accident blank and report accident that happened to D. Stevens, and forward same to department, and in future report all accidents as they occur. Complied.
- No. 61-W. B. Oglesby Paper Co. (Middletown), February 7, 1896-Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 62--Middletown Machine Co. (Middletown, February 7, 1896--Keep a correct record of all minors in your employ under eighteen years of age. Complied.
- No. 63-Union Steam Laundry Middletown), February 7, 1896--Cover or countersink all projecting set-screws in collars on shafting; provide a substantial easing or railing around belt operating extractor. Not reported as complied.
- No. 64—Jacoby Paper Co. (Middletown), February 7. 1896—Case in beveled gearing of stuffing chest; cover shafting near Cooper engine, where employes step over, would suggest that you cover with gas-pipe larger than shafting as it will take up less space: extend railing of Cooper engine to shaft of fly-wheel; case in all beveled gearing mashing downward; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 65-W. H. Todhunter & Co. (Middletown), February 7, 1896-Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 67--Culiman Brothers (Middletown), February 17, 1896--Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported compiled.
- No. 68—Middletown Electric Light and Power Co., February 17, 1896—Extend guard-rail in front of door-railing to pass pulleys where shafting has been extended. Complied.
- No. 70—Mitchell Brothers (Middletown), February 17, 1896—Provide a substantial casing or railing around fly-wheel of gas-engine; properly fill out accident blank and report accident that happened to Thomas Butler, and forward same to department, and in the future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as complied.
- No. 72—Wardlow-Thomas Paper Co. (Middletown), February 17, 1896—Cover beveled gearing and shaft of bag machine, near office, as explained by the Inspector to foreman. Complied.
- No. 78—Middletown Pump Co. (Middletown), February 17, 1896—Properly fill out accident blanks and report accidents that happened to Wm. Roberts and M. Gorbenstine and forward same to Department, and in future report al accidents as they occur; keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 74—Excelsior Steam Laundry (Middletown , February 17, 1896—Case in belt operating through floor driving extractor, easing to be at least three feet high. Not reported as complied.
- No. 77—Harding Paper Co. (Franklin), February 18, 1896—Keep a correct record of all minors in your employ under the age of eighteen years, in grading and rag sorting department. Compiled.
- No. 78--Harding Paper Co. (Franklin), February 18. 1896--Provide a saw-guard for rip-saw and keep same in use: a substantial casing or railing around face and east sides of flywheel of engine in basement in paper mill. Compiled.



- No. 81—Perrine Paper Co. (Franklin), February 18, 1896—Provide substantial railing on each side of belt driving beater: properly fill out accident blank and report accident that happened to Clarence Allen and forward same to department, and in future report all accidents as they occur; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 82--John Kaiser (Franklin), February 17, 1896--Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 85.—Wilmington Electric Light ©o. (Wilmington), March 3, 1896.—Provide a substantial railing along side of belt near south door, railing to be located on south side of belt, between belt and door; fill out accident blank and report accident that happened in your establishment some time since and forward same to department, and in future report all accidents as they occur. Complied.
- No. 92.—Hooven & Allison Co. (Xenia), March 27, 1896.—Keep a correct record of all minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 94—Xenia Shoe Manufacturing Co. (Xenia), March 27, 1896—Case in all shafting operating under sewing-machine tables; keep a record of all minors in your employ under the age of eighteen years. Not reported as complied.
- No. 96--Midland Paper Co. 'Kenia'), April 10, 1896—Case in all exposed belts where they operate through floor in beater-room; casing to be not less than four feet high; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 96—R. A. Kelly Co. (Xenia), April 10, 1896—Cover or countersink all projecting set-screws in collars on shafting: keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 97—Piqua Daily Leader (Piqua), April 21, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 98—Ohio Rake Co. (Dayton), April 21, 1896—Cover or countersink all projecting set-screws in collars on shafting: provide an exhaust system to carry away dust from emerywheels: properly fill out accident blanks and report accidents that happened to C. Johnson and C. Meisner and forward same to department, and in future report all accidents as they occur; keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 99—Crawford, McGregor & Canby Co. (Dayton), April 21, 1896—Provide a guard for rip-saw and keep same in use. Compiled.
- No. 100—Beaver Soap Co. (Dayton). April 21, 1896—Properly fill out accident blanks and report accidents that happened to Henry Latten A. Geocheal and forward same to department and in future report all accidents as they occur. Compiled.
- No. 101—M. J. Shaefer (Dayton), April 21, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as complied.
- No. 103—Stomps-Burkardt Chair Co. (Dayton), July 14, 1896—Cover or countersink all protruding set-screws in collars on shafting. Complied.
- No. 104--Troy Steam Laundry (Dayton), July 14, 1896--Case in all belting operating through floor; cover or countersink all projecting set-screws in collars on shafting; cover set-screws and key on body ironer; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur: provide new cable for elevator also automatic (self-closing) elevator gates for elevator openings on first and second floors. Complied.
- No. 105—John Rouzer Co. (Dayton), July 14, 1896—Case in belts and pulleys operating near floor driving two large planers; place a casing in front of bottom wheel of band-saw; cover or countersink all projecting set-screws in collars on shafting; keep a correct record of all minors in your employ under the age of eighteen years. Compiled



- No. 106-Ohio Rake Co. (Dayton), July 14, 1896-Cover or countersink all projecting set-screws in collars on shafting; true up emery-wheel and muchinery driving same. Compiled.
- No. 107--Mathias Planing Mill Co. (Dayton', July 14. 1896--Provide saw-guards for all rip-saws and keep same in use; adjust the guard which you have and see that your employes use it at all times when practicable; case in countershafts, belts and pulleys operating near floor; cover or countershaft all projecting set-screws in collars on shafting. Compiled.
- No. 108--H. C. Mahrt Co. (Dayton), July 14, 1896--Keep a correct record of all minors in your employ under the age of eighteen years. Complied.
- No. 109-Joseph J. Shaefer (Dayton). July 14, 1896—Keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 118—American Fence Co Dayton), July 14, 1896—Cover clutches on main shaft with hood. Order rescinded.
- No. 118—Pinneo & Daniels (Dayton), July 22. 1896—Cover or countersink all projecting set-screws in collars on shafting in main factory and hub and spoke departments; place casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel, to catch the saw in case it should break or slip off top wheel; case in jack pulleys of planer. Complied
- No. 120—S. N. Brown & Co. (Dayton). July 22, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 121—Buckeye Iron and Brass Works (Dayton), July 22, 1896—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 127-F. A. Requarth Co. (Dayton), July 22, 1896—Case in all countershafts, belts and pulleys operating near floor; provide saw-guard for rip-saw and keep same in use. Complied.
- No. 130—O. L. Bouck Co. (Dayton), July 31, 1896—Case in countershafts, belts and pulleys operating near floor; provide some suitable protection in front of top wheel of band-saw to catch saw in case it should break or slip off top wheel. Compiled.
- No. 134—Stoddard Manufacturing Co. (Dayton), July 31, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in countershafts, belts and pulleys operating near the floor; properly fill out accident blanks and report all accidents that have happened in your establishment and forward same to department, and in future report all accidents as they occur Not reported as compiled.
- No. 136—Peirce & Coleman Co. (Dayton), July 31, 1896—Case in all countershafts, belts and pulleys operating near floor. Complied.
- No. 187—Zwick-Greenwald Wheel Co. (Dayton), August 13, 1896—Provide a casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off; case in all countershafts, belts and pulleys operating near floor; also the pulleys on sizing machines. Compiled.
- No. 188--Durst Milling Co. (Dayton), August 13, 1896--Provide a protection between transmitting rope and all passageways where employes pass near or under rope; cover or countersink all projecting set-screws on shafting; cover all exposed gearing. Compiled.
- No. 139--Dayton Brewing Co. (Dayton,, August 13, 1896.--Cover or case in large cog-wheel on top of mash. Complied.
- No. 14i-Dayton Globe Iron Works Co. (Dayton). August 5, 1896-Reduce the speed of the sixteeninch emery wheel so as not to exceed 1,200 revolutions per minute. Compiled.
- No. 148—Leland & Tiffany (Dayton), August 27, 1896—Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 149—H. L. Pope & Co. (Dayton, August 11, 1896--Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 150--Pearl Laundry Co. (Dayton), August 11, 1896--Cover or countersink all projecting setscrews in collars on shafting; cover cog-gearing on small ironing machine with sheet iron cap. Complied.

- No. 156--Dayton Gas Engine and Manufacturing Co. (Dayton), August 27, 1896--Provide a substantial casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case it should break or slip off top wheel-Compiled.
- No. 159—Schwind Brewing Co. (Dayton), August 27, 1896—Cover or countersink all projecting set screws in collars on shafting. Complied.
- No. 160—Adam Schantz (Dayton, August 27, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 161—Dayton Manufacturing Co. (Dayton: August 27, 1896—Cover or countersink all projecting set-screws in collars on shafting; raise belt driving small fan so that employes can pass under without coming in contact therewith; case in two large belts operating dynamos. Complied.
- No. 163-Wm. Frock & Sons (Dayton), September 3, 1896—Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 164—Brownell Co. (Dayton), September 3, 1896—Cover or countersink all projecting set-screws in collars on shafting Complied.
- No. 166—N. Thomas (Dayton), September 3, 1896—Cover or countersink all projecting set-screws in collars on shafting; cover or case in the power wheel of water pump; provide a railing around gearing under mash tub. Compiled.
- No. 169—W. P. Callihan & Co. (Dayton), September 3, 1896—Cover or countersink all projecting set-screws in collars on shafting; place a substantial casing in front of lower wheel of band-saw and some suitable protection in front of top wheel to catch the saw in case it should break or slip off top wheel. Compiled.
- No. 171—Dayton Computing Scale Co. (Dayton), September 2, 1896—Provide a substantial railing around hot water tank in plating room; a substantial railing around main belt; place a substantial casing in front of bottom wheel of band-saw, and some suitable protection in front of top wheel to catch the saw in case it should break or slip off Compiled.
- No. 174—Miami Valley Box Factory (Dayton), September 2, 1896—Cover or countersink all projecting set screws in collars on shafting; cover exposed cog-gearing on large planer. Complied.
- No. 176—Aull Brothers, Paper and Box Co. (Dayton), September 22, 1896—Cover fly-wheel of paper cutter. Complied.
- No. 177—Gem Shirt Co. (Dayton), September 22, 1896—Case in all pulleys and shafting operating under sewing-machine tables. Compiled.
- No. 178—Hayner Distilling Co. (Dayton), September 22, 1896—Case in fly-wheel on hand-press in printing department. Complied.
- No. 180-Canby, Ach & Canby (Dayton), September 22, 1896-Case in transmitting power ropes on each floor. Compiled.
- No. 181—Peter Kuntz Manufacturing Co. (Dayton), September 22. 1896—Cover or countersink all projecting set-screws in collars on shafting; provide a substantial casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch the saw in case it should break or slip off top-wheel. Compiled.
- No. 182—Lowe Brothers Co. (Dayton), September 22, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in main belt on upper floor. Complied.
- No. 183—Dayton Spice Mill Co. (Dayton), September 22, 1896—Cover or countersink all project ing set-screws in collars on shafting. Complied.
- No. 185—Davis Sewing Machine Co. (Dayton). September 22, 1896—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 186-Dayton Malleable Iron Co. (Dayton', September 22, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.

- No. 188—American Straw Board Co. (Dayton). November 12, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 190-Haas Brothers (Dayton, November 12, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 193—Terry & Porterfield Co. (Dayton), November 12, 1895—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 195—Burkhardt Furniture Co. (Dayton). November 12, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 195—Dayton Church and Opera Chair Co. (Dayton), November 12. 1896—Provide some protection in front of top-wheel of band saw to catch the saw in case it should break or slip of top-wheel; case in belts and pulleys operating planer. Compiled.
- No. 198-Stillwell-Bierce & Smith-Vaile Co. (Dayton), November 12, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 199-Mead Paper Co. Dayton), November 12, 1896-Provide substantial easing or railing around large belts in beater-room; substantial easing over large driving belt on third floor. Complied.
- No. 202—Charles Hofritz (Dayton), November 12, 1896—Cover or countersink all projecting setscrews in collors on shafting. Compiled.
- No. 203—Joyce, Cridland Co. (Dayton), November 12, 1886—Cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.
- No. 205—Kratochwill Milling Co. (Dayton), November 12, 1896—Case in upright shaft where it operates through floor, casing to be not less than four feet high: cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 206—John Dodds Manufacturing Co. (Dayton), November 12, 1896—Provide saw-guards for ripsaws and keep same in use at all times; case in all countershafts, belts and pulleys operating near floor: cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.
- No. 208—Joseph Weinreich (Dayton), November 20, 1896.—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 210-J. W. Johnston (Dayton), November 20, 1896-Cover or cut off keys on fly-wheels of presses. Complied.
- No. 211—Giele & Pflaum (Dayton), November 20, 1836—Cover or cut off keys on fly-wheels of presses
  Complied.
- No. 215—Huffman Publishing Co. (Dayton', November 20, 1896—Cover or cut off keys on fly-wheels of presses. Job office closed and sold out.
- No. 223—Royal Remedy and Extract Co. (Dayton), November 20, 1896—Cover or cut off keys on flywheels of presses. Complied.
- No. 224-J. S. Antrim (Dayton), November 25, 1896—Post notices of hours of labor required a day of minors in your employ under age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.



- No. 226—John Klee Sons (Dayton). November 25, 1896—Case in belting operating through first floor. Compiled.
- No. 228—L. W. Keyer (Dayton), November 25, 1896—Case in pulley driving upright planer; post notices of the hours of labor required a day of minors in your employ under age of eighteen years, in each room where employed, and keep record of all such minors. Compiled.
- No. 230—Bucher & Bucher Co. (Dayton), November 25, 1896—Post notices of the hours of labor required a day of minors in your employ under age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 238—National Cash Register Co. (Dayton', November 25, 1896—Provide saw-guards for ripsaws and keep same in use: place a casing under belt in basement driving stamping machine; post notices of hours of labor required a day of minors in your employ under age of eighteen years, in each room where such minors are employed, and keep record of all such minors; properly fill out accident blanks and report accidents that happened to four of your employes some time and forward same to department, and in future report all accidents as they occur. Complied.
- No. 235—J. J. Bucher (Dayton), November 25, 1896—Post notices of the hours of labor required a day of minors in your employ under age of eighteen years, in each room where employed, and keep record of all such minors. Compiled.
  - 286—Wallaston & Hammond (Dayton), November 25, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- § N 0 -John Stengle & Co (Dayton), November 25, 1896—Provide guard for drag-saw in front shop; case in pulleys and belts driving jointer in rear shop. Compiled.
- No. 241—A. Cappel (Dayton), December 2, 1896—Case in shafting under sewing-machine tables, operating sewing-machine; cover or countersink all projecting set-screws on main and countershafting. Compiled.
- No. 242—E. C. Boyer (Dayton), December 2. 1896--Cover or countersink all projecting set-screws in front of pumps. Compiled.
- No. 246—Dayton Fruit-Tree Label Co. (Dayton), December 2, 1896—Cover or countersink all projecting set-screws in collars on main or countershafting; case in main belt on factory floor about four and one-half feet high. Compiled.
- No. 248—Dayton Screw Co. (Dayton), December 2, 1896—Cover or countersink all projecting setscrews in collars on line and countershafting. Compiled.
- No. 249—Barney & Smith Car Co. (Dayton), December 2, 1896—Cover or countersink all projecting set-screws in collars on shafting in frieght, passenger, blacksmith and machine shops, also in bolt-room and annex; case in pulleys to universal wood-worker in passenger shop operating near floor; provide casing in front of bottom wheel of band-saw and some suitable protection in front of top wheel to catch saw in case-it-should break or slip off top wheel. Complied.
- No. 250-C. F. Ware Coffee Co. (Dayton), December 2, 1896-Cover or countersink all projecting set-screws in collars on line and countershafting; case in transmitting ropes at least four and one-half feet above each floor. Compiled.
- No. 251—Houck & Ely (Dayton), December 3, 1896—Cover or countersink all projecting set-screws in collars on line and countershafting. Complied.
- No. 252-W. P. Lewis & Co. (Dayton), December 8, 1896-Case in pulley driving agitator on floor next to pump. Complied.
- No. 255—Hewitt Brothers (Dayton), December 3. 1896—Cover or countersink set-screws over mixing macnine] Compiled.
- No. 256—United Brethren Publishing House (Dayton), December 3, 1896—Cover or countersink all projecting set-screws in collars on line and countershafting in rooms No. 32, No. 33 and No. 36 and press room; cover or case in cross belt in engine room driving freight elevator. Complied.

- No. 259--American Steam Laundry (Dayton), December 3, 1896--Case in wheel at wringing-machine; cover or countersink protruding set-screws at end of mangler. Compiled,
- No. 264—Sweetman Printing House (Dayton). December 3, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to this department, and in future report all accidents as they occur. Compiled.
- No. 265—German Newspaper Co. (Dayton), December 3, 1896—Remove or drive in flush with shaft keys on end of mandrels to all printing presses. Complied.
- No. 267-Reynolds-Easton Co. (Dayton), December 3, 1896—Cover or countersink all projecting set-screws in collars on main and countershafting. Complied.
- No. 268—Dayton Paper Noveity Co. (Dayton), December 3, 1896—Cover or countersink all projecting set-screws in collars on main and countershafting. Complied.
- No. 272--D. L. Bates & Brother (Dayton), December 3, 1896—Cover or countersink all projecting set-screws on collars on main and countershafting; line up main shafting and put same in good working order. Complied.

# TABLE X-TENTH DISTRICT-FACTORIES INSPECTED.

## HAMILTON COUNTY.

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	Business or kind of manufacturing.		Confectionery Silvering and bevellng glass	Silvering and beveling glass	Brass and plating work	Cooper shop	_	Chewing gum	Confectionery	_		Laundrying	_	Chars	Saddlery and harness	Cigars.		Brushes and maps		Laundrying
	Location.		830 Everett street.	430 Oliver street.	272 Colerain avenue	Spring Grove avenue	12-14 West Court street.	162 West Court street	920-922 Fim street	25-30 West Court street	316 Genesse Street	TOTAL THE SCIENCE COMMENT	Plain and Court streets	Sixth and Main streets		225-9 East Third street	200-17	1023 Main street.	108 East Thirteenth street.	211-13 East Ninth street
	Name of firm and city, town or village.	CINCINNAFI	F Webking Section Plate Co.	Cheinnati Beveling and Silvering Co	National Brass Manufacturing Co	Eagle Cooperage Works Charles W. Brencman & Co	Cincinnati Lithographic Co.	A. F. Levi Bros. Co.	Sauerston & Brown	P. Eckert Co	Louis Deutschle.	American Laundry	Lloyd Bros	S. Joseph & Co.	Engelke Saddlery Co	L. Newburger & Bro	A. Davis Sons Co.		Peter Relter & Co	White Star Laundry Co. Slide-Back Suspender Co
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Lithographing		Cigary		Printing	Horse collars	Fine cut tobacco	Paper boxes and bags	Cirar	Tobacco stemming	Printing	Smoking tobacco	Paper stock	Printing	Billiard tables	Distillery	Cigars		Coffee and spice mill	Cigars		Laundrying		Ladies shoes		Tools	Ficture frames	I adian	Lagues snoes.	Swear pags	rags and paper stock	TION TOOMING	Page and names stools	Woolen shoddies	Hosierv	Cigar	Shirts	Cigars	Tobacco fuctory	Hosiery	Button holes.	Hat frames.		Lithographic art printing	Button holes	Electrical specialties	Shirts		Pilnting and Binding	Book binding
127 East Eighth street.	20 George street	121-25 East Eaghth street	213-15 Fast Sixth street.	314 East Sixth street	315-17 Hammond street	312-16 Sycamore street	313	Pleasant Court	Front and Race streets	230 East Third street.	067	117-19 East Canal street	Walnut and Canal streets	96 West Canal street	Ninth street	Ninth and Broadway	. 412-416 East Eighth street	210 Wahint street	215 Wahint street	Pearl and Main streets	1902-4 Coleman street.	1218-20 Race street	Me-15 Broadway	Ninth and Sycamore streets	821 Broadway	Court and Broadway			nearman street	esessi rupile Landing	F0.505	27.20 Marin Process	191.98 Broadway	Second and Ludion streets	116 West Pearl street	139 West Pearl street.	136-138 East Pearl street	East Second street	Third and Elm streets	Third and Vine streets	215 West Fourth street	187	Third and Plum streets			Walnut street	Fourth street	210-21 2East Fourth street	219-221 Walnut street
W. M. Donaldson Hennegan & Co. (branch)	P. Trucey	Volue & Winter	Krohn, Feiss & Co.	Raisbeck & Co	Lungenbrunner & Co	Spence Bros. Co	William Helwig, Jr.	J. H. Luke & Co	P. J. Sorg Co.	Oppenheimer & Co	Square Cut Tobacco Co	E Bowen		National Billiard Table Manufacturing Co	Rheinstrom, Bettman, Johnson & Co	S. Rosenberger & Co	Strong, Hamberger & Co	W. H. Harrison & Co	John Flack	O E Schulte & Co	Banner Laundry	Snow Flake Laundry	H. K. Roberg & Co	Maloney Bros	Cincinnati Tool Co	Bange & Metzger	Sunvan Printing Works	Flant & Marks Shoe Manufacturing Co	Cheen Oly Fad Co.	Office (a Delaine)	American Doubling Co.	Process Dissiply	Editest Dietren	Bucharach & Loch	Stadeker & Boering Co	Ideal Shirt Co	LaMora Cigar Co	Luhrman & Wilburn	Donner Bros. Co	A Waldner	Fugenc Frank	H. H. Korn	Fred Achert Lithographic Art Co	Louis Waldage	Wolf Flectrical Promoting Co.	Hall Bros	C. E. Smith	A. Melen.	Henry C. Sherick

TABLE X-TENTH DISTRICT-FACTORIES INSPECTED-Continued.

## HAMILTON COUNTY-Continued.

			Z	Number em ployed	ġ	bjoλe	-01	rdered corre- tol 19
Name of firm and city, town or village.	Location.	Business or kind of manu- facturing.	Males.	Females.	Minore	Total number em	How often are e	o seenot of the control of the contr
CINCINNATI-Continued.								
Kenton Baking Powder Co	20-22 East Pearl street	Baking powder	2.	8	က	<b>₫</b> ,	Weekly	<b>z</b>
Modoc Soap Co M. Benjaman	30 East Pearl street	Caps	စေစေ	=	•	- 18°		
n m nealey	Бапк впеу	Printing	n (-	•	-	C (-	::	_
H. Zumbiel	120-124 East Pearl street Rear 206-210 Walmit street	Paper boxes	. oc 5	83 =	oc ø	82	::	<b>8</b> 8
Hyman Rosin	409 Carlisle avenue	46 94	3,8		4-	223	::	6
American Toilet Supply Co.	128	Laundrying	30.	э.	•	35.		28
Buschle & Hagen E. E. Shaw	8.8	Wood for engravers	۰.			o <b>s</b> o	: :	:
	Fourth and Race streets	Clonks and suits	=°	<b>4</b> 3		25.	: :	88
Frank Gofton	614 614	Shirts	0 61	32	<b>-</b>	‡ 22		
	Central avenue and Ann street	Cigars	ϡ	-:		28	: :	
Fosdick & Plucker Machine Tool Co	142 Culvert street	Machine tools	\$.	2	9	3 \$		
Davis & Egan Machine Tool Co . William Barker & Co	Sixth, Culvertats Eggiston ave		8 8		Kî	35	::	<u>8</u> 8
Carlisle & Finch	830-32 West Sixth street	Electrical repairing	12			2	:	_
Charles A. Maish	840-42 35	Mattress supplies	•	Ī	01 2	<b>x</b>	: :	
Randal & Co	208	Harness machinery	-8	•	4	8		
Lane & Bodley Co	John and Water streets	Machinery	왏	ě	=	200	: :	_
	300 Wallut Bures 1	Printing	. <b>2</b>	2 3	3	3 2		
National Saw Co. Joseph Greenwald	Sixth and Baymiller streets	Saws and trowels	2°;	٠	031	<b>Z</b> 2		==
Change Online & Co.	Deale services	Platenta famous and well-flow	8 8	•	- ;	27	:	

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Main Arteet		
Mon-16 Baymiller street.   Blectric supplies   155   17   2   17   17   17   17   17   17	± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±	
Main street	**************************************	:
Main street		° 2
Main street   Electric supplies   125		
17 Sycamore street   Buggles and carriages   17 Sycamore street   Buggles and carriages   17 Sycamore street   Buggles and carriage shoes   18 Sycamore street   18 Show and st		
Month of Baymiller street   Tif Sycamore street   Main s		°2
GO GO INF CO INF CO INF CO	Electric supplies  Ladies shoes  Shoes  Shoes  Carriage material  Peture frames  Sevul  Chairs	Carriage tops
		1335-54
######################################	Triumph Electric Co.  Victor Buggy Co.  Miller, Rollhepp & Glese  George J Schoeppel  Charles H. Albright & Co.  Charles H. Albright & Co.  Charles H. Albright & Co.  Cramer Co.  John Pey & Co.  Fruix Bross  Loseph Fieldkamp  Sreif & Schmit  William Brewer & Co.  Cheminal Regalia Co.  A. & H. William Brewer & Co.  Cheminal Regalia Co.  A. & H. William Brewer & Co.  National Flag Co.  Thomas H. Heath  J. H. Darke & Co.  Thomas H. W. Co.  Thomas H. Corona  Pertibone Bross Works.  A. Sincenbrege & Co.  Thomas H. W. Monter & Co.  Thomas H. W. W. W. W. W. W. W. W. W. W. W. W. W.	

# TABLE X-TENTH DISTRICT-FACTORIES INSPECTED-Continued.

## HAMILTON COUNTY-Continued.

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	Business or kind of manu- facturing.		Planing mill	Planing mill	White lead and paints.		Boxes.	Saloon fixtures	Ladies' shoes	Cigars	Stair building	Lower nouse	Dinne	Refrigerators	Ladles' shoes.		Picture frames and mould'g	Soap	Flevators	Baking nowder and spice	Stained glass designs		Laundry machinery.	Stufr building	Chalr	Surgeons, & engineers' Inst.	Bruss Koods		Muchinery
	Location.			200-2 Kichibolid Street.	128-73 Budd street.	Ninth G. and Processing	903-7 Freeman avenue.		318-30 East Third street	413 Sycamore street			Calbort organia		814-18 Broadway.			Spring Grove avenue		292-94 Fast Third street		_	_			430 Plum street			IT-IV Home street
	Name of firm and city, town or village.	C1NC1NNAT1—Continued.	Stark & Co.	Robinson Planing Mill Co	Walker White Lend Co	American Carriage ( o						Total Co		J. W. Wayne					Grandelta Curations Co.		rkins Glass Decorating Co.		_					infacturing Co	Fred Buob Machine Co
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Corset stays. Plumbing supplies Mattresses, etc. Soap. Soap. Foundry Tailoring. Planing mill Laundrying. Funidure	. n. 00		Shoes, Grates and mantels Stair building
430 Plum street. 17 East Fifth s'reet. 2248 Sprink Grove avenue. Buck street. 171 Fim street. 171 West Liberty street. 1613-21 Plum street. 1848 Logan street.	South street.  South street.  Eichth and Depot streets.  South street.  Richmond and McLean avenues.  Richmond and McLean avenues.  Richmond street.  220 221 222 222 222 222 222 222 222 22	H. West Penel street. Pearl and Vine streets. Pearl and Vine streets. Per Main street. Per Mest Sixth street. Per Mest Liberty street. Per Mest Liberty street. Per Penel Sixth street. Per ESW Walnut street. Per ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Rear ESW Main street. Streets and Broad way. Seventh and Main street. Fighth and Lock streets. Per Sist Vine street. Streets street. Streets street. Canal and Race street. Canal and Race streets.	516 Hunt street
Thomas Manufacturing Co J. G. Murdock & Co Bernau Wessel. Eureka Soap Co Bureka Soap Co Burekeye Foundry Co Joseph Siebler. M. Marcus. M. Marcus. Anchor Laundry Joseph Scheid & Son	Shermer Furniture Co. Queen Ciry Ink Co. Mill Creek Wagon Co. Fisher Carnage Co. Keystone Buggy Co. A. Lasance American Pole and Shaft Co. Schmitt & Bro. Co. Schmitt & Bro. Co. S. New mann. M. Ottmann & Son. A. Ottmann & Son. A. Ottmann & Son. A. Ottmann & Son. A. Ottmann & Son. A. Ottmann & Son.	A Blachschleger  The mon Merchant Tailoring Co Book Publishing Co W M Donaldsom Co W M Donaldsom Co W M Donaldsom Co W M Donaldsom Co W M Donaldsom Co W M Donaldsom Co W Co W Co W Co W Co W W W Co W W W W W W W W W W W W W W W W W W W	inspection
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TABLE X-TENTH DISTRICT-FACTORIES INSPECTED.—Concluded.

HAMILTON COUNTY.—Concluded.

				Num	Number em- ployed.			-mə	dered corre- for rol- 6.
	Name of firm and city, town or village.	Location.	Business or kind of manufacturing.			lms 19d		\$10°	his table with wese or
Number.				<b>Дајев</b>	Females.	Minora. Total num		How ofte	For chair spending sponding towing t
	CINCINNATIConcluded.								
888888	Pran Manufacturing Co W. E. Ward J. E. Poorman Cincinnari Word Ornamental Works Herman Lolauss	522 Hunt street 1:47 Central avenue 622 Race street 1249 Plum street 129 129 West Canal street	Plumbers' supplies	800442	61 61	rc 60	% Wee	kly	8
202	Harribon. Pioneet Drill Works	48-50 Market street	Corn drillsPottery	श्रद			12 Wee	Weekly	308
120	IDLEWII A. Dischner	Montgomery pike	_	7			14 Wee	Weekly	
22	Norwood. F. G. Liemann	Main and Hudson avenues	Planing mill	۲۰		•	7 Wee	Weekly	8

### TENTH DISTRICT-FACTORIES.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 1—F. Wehking (Cincinnati), December 3, 1895—Post notices of the hours of labor ruquired day of minors in your employ under the age of eighteen years, in each room w employed, and keep a record of all such minors. Compiled.
- No. 2—Western Mirror Plate Co. (Cincinnati), December 3, 1895—Post notices of the hours o labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 4—Cincinnati Beveling and Silvering Co. (Cincinnati), December 5, 1896—Case in all exposed belting operating through the floors; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 5—Cincinnati Metallic Manufacturing Co. (Cincinnati). December 3, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 6—National Brass Manufacturing Co. (Cincinnati), December 8, 1895—Case in main belt operating through the floor; cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 9—Cincinnati Lithographic Co. (Cincinnati), December 9, 1895—Remove or cover projecting keys in fly-wheel shafts of presses. Complied.
- No. 19—S. Joseph & Co. (Cincinnati), December 18, 1895—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 2!—L. Newberger & Brother (Cincinnati, December 18, 1895—Keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 24—R. H. Miller (Cincinnati), December 18, 1895—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of same. Complied.
- No. 27—White Star Laundry (Cincinnati), December 18, 1895—Cover or countersink all projecting set-screws in collars on shafting. Compiled.
- No. 30—W. M. Donaldson (Cincinnati). December 18, 1895—Cover or countersink all projecting set-screws in collars on shafting, and remove or cover projecting keys on shafting of printing presses; properly fill out accident blank and report accident that happened to two of your employes some time since and forward same to department, and in the future report all accidents as they occur. Compiled.

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- No. 32—P. Tracy (Cincinnati), December 18, 1895—Post notices of the hours of labor required a
  day of minors in your employ under the age of eighteen years, in each room where
  employed, and keep a record of all such minors. Complied.
- No. 45—Feckter & Braam (Cincinnati), December 18, 1895—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 49—Streng, Hamberger & Co. (Cincinnati), January 7, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur; keep a correct record of all minors in your employ under the age of eighteen years. Compiled.
- No. 50--W. H. Harrison & Co. (Cincinnati), January 7, 1896--Case in all exposed belting operating through floor. Compiled.
- No. 51--John Flach (Cincinnati), January 7, 1896—Discharge Frank Renschler, living at 24 Mansfield street, age thirteen, as per the law to prevent the engagement of minors under the age of fourteen years during the time they are required to attend school; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 61—Queen City Pad Co. (Cincinnati), January 24, 1896—Provide better ventilation in picking and stuffing rooms by placing a disc fan in window or wall of building, fan to be at least thirty inches in diameter. Not reported as complied.
- No.74—Eugene Frank (Cincinnati), February 4, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 78—H. H. Korn (Cincinnati), February 4, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 76—Fred Achert Lithographic Art Co. (Cincinnati), February 4, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 77—Louis Wald & Co. (Cincinnati, February 4, 1896—Case in all shafting operating under sewing-machine tables; post notices of the hours of labor required a day of minors under the age of eighteen years, in each room where employed, and keep a record of all such minors. Not reported as compiled.
- No. 78—Julius Waldner (Cincinnati), February 4, 1896—Case in countershafting operating under sewing-machine tables. Complied.
- No. 82—A. Nielen (Cincinnati), February 4, 1896—Cover or remove all keys in fly wheel shafts of presses; properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in the future report all accidents as they occur; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 84—Kenton Baking Powder Co. Cincinnati), February 10, 1896—Case in all exposed belting operating through floor; cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ, in each room where employed, and keep a record of all such minors. Complied.
- No. 89—C. H. Zumbiel (Cincinnati), February 10, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.

- No. 91—Hyman Rosin (Cincinnati), February 17, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 98—American Toilet Supply Co. (Cincinnati), February 17, 1896—Cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 95-E. E. Shaw (Cincinnati), February 17, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 96-H. Rosenbaum & Co. (Cincinnati), February 17, 1896—Case in shafting operating under sewing-machine tables. Complied.
- No. 97—Home Steam Laundry (Cincinnati), February 17, 1896—Cover or countersink all projecting set-screws in collars on shafting: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 98—Frank Grafton (Cincinnati), February 17, 1896.-Case in shafting operating under sewingmachine tables. Compiled.
- No. 101—Fosdick & Plucker Machine and Tool Co. (Cincinnati), February 17, 1896—Cover or countersink all projecting set-screws in collars on shafting belonging to your company; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 102—Davis & Eagan Machine Tool Co (Cincinnati), February 17, 1896—Cover or countersink all projecting set-screws in collars on shafting in your establishment, also in line-shafting of Messrs Fosdick & Plucker and Wm. Barker's machine shops; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 103—William Barker & Co. (Cincinnati), February 17, 1896—Properly fill out accident blank and report accident that happened to one of your employes some time since and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 108—Lane & Bodley Co. (Cincinnati), February 24, 1896—Case in all exposed belting operating through floor; properly fill out accident blanks and report accidents that happened in your establishment some time since and forward same to department, and in future report all accidents as they occur; post notices of the hours of laborrequired a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 111—National Saw Co. (Cincinnati), March 3, 1896—Place a casing in front of bottom wheel of band-saw: case in all exposed belts operating through floors; cover or countersink all projecting set-screws in collars on shafting. Not reported as complied with.
- No. 112—Joseph Greenwald (Cincinnati), March 3, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 115—Triumph Electric Co. (Cincinnath, March & 1896—Cover or countersink all projecting setscrews in collars on shafting; case in all exposed belting operating through the floor; place a substantial easing in front of bottom wheel of band-saw; post notices of the bours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.



- No. 117—Miller, Kohlhepp & Giese (Cincinnati), March 3, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 118--Gregson, Robson & Co. (Cincinnati), March 3, 1896--Cover or countersink all projecting set-screws in collars on shafting belonging to your firm; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 119-George J. Schoeppel (Cincinnati), March 3, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 121—Cramer Co. (Cincinnati), March 10, 1896—Cover or countersink all projecting set-screws in collars on shafting; case in all belts operating through ficor; provide saw-guard for rip-saw and keep same in use; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 181—Alex. D. Cunny (Cincinnati), March 19, 1896—Provide a substantial casing in front of bottom wheel of band-saw; cover or countersink all projecting set-screws in collars on shafting; case in all exposed belts operating through floor. Compiled.
- No. 133—National Flag Co. (Cincinnati), March 19, 1896—Cover or countersink all projecting setscrews in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 184—Bowman and Bettman (Cincinnati), March 19, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteeen years; in each room where employed, and keep a record of all such minors. Complied.
- No. 188—Mendel & Co. (Cincinnati), March 30, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of same. Complied.
- No. 147—Pettibone Brothers Manufacturing Co. (Cincinnati), March 30, 1896—Case in all shafting operating under sewing-machine tables. Complied.
- No. 156—H. D. Smith Co. (Cincinnati), April 10, 1896—In paper box department post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 157—H. D. Smith Co. (Cincinnati), April 10, 1896—In confectionery department post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 164—H. Cook & Brother (Cincinnati), April 17, 1896—Provide a guard for drag-saw as explained by Inspector; cover cog-gearing on sand-paper machine and planer; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Partially compiled.
- No. 167—Stark & Co. (Cincinnati), April 18, 1896—Provide saw-guard for rip-saw and keep same in use. Not reported as compiled.
- No. 170-Walker White Lead Co. (Cincinnati). April 17, 1896-Provide a substantial casing or railing around exposed portion of fly-wheel of engine; cover or countersink all projecting set-screws in collars on shafting. Not reported as complied.



- No. 171—American Carriage Co. (Cincinnath, April 17, 1896—Open the stairway at the east end of building from first to fourth floor, so that it can be used at all times as a means of egress; separate water-closet on second floor for the exclusive use of female employes. Complied.
- No. 172—Elite Laundry and Carpet Cleaning Co. (Cincinnati), May 6, 1896—Cover or countersink all projecting set-screws in collars on shafting: post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 175—P. Sullivan & Co. (Cincinnati), May 5, 1896—Cover or countersink all projecting setscrews in collars on shafting; case in all shafting operating under sewing-machine tables; provide a loose pulley and belt-shifter for shaft driving sewing-machines; case in all exposed belting operating through floor. Not reported as complied.
- No. 176—E. Blatt & Co. Cincinnati), May 6. 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 180—Baldwin Piano Co. (Cincinnati), May 21, 1896—Suspend casing under driving belt operating over passageway between old and new building: provide casing in front of bottom wheel of baud-saw and saw-guards for rip-saws not provided with same and keep them in use. Complied.
- No. 182—H. K. Roberg & Co. (Cincinnati), May 21, 1896—Cover or countersink all projecting setscrews in collars on shafting; case in shafting operating under sewing-machine tables driving sewing-machines. Complied.
- No. 133—Thale & Co. (Cincinnati), May 21, 1896—Provide a safety bar in front of rolls on rolling machine as explained by the Inspector; post notices of the hours of labor required a day or minors in your employ under the age of eighteen years, in each room where employed, and keep a record of same. Complied.
- No. 184—Joseph Nurre (Cincinnati), May 21, 1896—Provide saw-guards for rip-saws and keep same in use; cover or countersink all projecting set-screws in collars on shafting; case in all exposed belting operating through floor. Not reported as compiled.
- No. 188—W. W. Thomas (Cincinnati), June 11, 1896—Case in all exposed belting operating through floor; cover or countersink all protruding set-screws in collars on shafting. Complied.
- No. 191-F. M. Watkins (Cincinnati), June 11, 1896-Provide a casing in front of bottom wheel of band-saw; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 193-Fred Lubke & Sons (Cincinnati), June 11, 1896-Case in all exposed belts operating through floor; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 202—Pioneer Drill Works (Cincinnati), July 6, 1896—Cover or countersink all projecting setscrews in collars on shafting. Compiled.
- No. 204—Herman Wessel (Cincinnati, July 6, 1896—Cover or countersink all projecting set-screws in collars on shafting; cover or drive in flush set-key on end of mandrel or axle of picking machine; provide a belt-shifter for picking machine. Compiled.
- No. 206—Dreses, Mueler & Co. (Cincinnati), July 31, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 207—Buckeye Foundry Co. (Cincinnati), July 31, 1896—Provide a substantial casing in front of bottom wheel of band-saw; cover or countersing all projecting set-screws in collars on shafting. Compiled.



- No. 211—Anchor Laundry (Cincinnati), July 31, 1896—Cover or countersink all projecting set-screws in collars on shatting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 216—Fisher Carriage Co. (Cincinnati), August 13, 1896—Post notices of the hours of labo required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a correct record of all such minors. Compiled.
- No. 219—American Pole and Shaft Co. (Cincinnati), August 13, 1896—Cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a correct record of all such minors. Compiled.
- No. 220—Brighton Buggy Co. (Cincinnati), August 13, 1896--Post notices of the hours of labor required a day of minors in your employ under eighteen years of age, in each room where employed, and keep a correct record of all such minors. Compiled.
- No. 221—Schmitt & Brothers Co. (Cincinnati), August 27, 1896—Provide saw-guard for rip-saw and keep same in use. Not reported as complied.
- No. 224—Queen City Hat Frame Co. (Cincinnati), September 8, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 234—Queen City Box Co. (Cincinnati), September 8, 1896—Case in belts and pulleys driving lock corner machine; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 236—F. G. Lieman (Norwood), September 8, 1896—Provide saw-guard for rip-saw and keep same in use. Complied.
- No. 237—Legal Publishing Co. (Cincinnati), September 24, 1896—Cover or countersink all projecting set screws in collars on shafting, also cover or cut off keys in shafting of flywheels of presses; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 240—G. A. Flad (Cincinnati). September 24, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep record of all such minors. Complied.
- No. 245—Hellman, Bettman & Co. (Cincinnati), September 24, 1896—Cover or countersink all projecting set-screws in collars on shafting. Compiled
- No. 246- Cahill, Hennessee, Holters Co. (Cincinnati), September 24, 1896-Cover or countersink all projecting set-screws in collars on shafting; post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.
- No. 250—Fritz Brothers (Cincinnati), September 28, 1896—Post notices of the hours of labor required a day of minors in your employ under the age of eighteen years, in each room where employed, and keep a record of all such minors. Complied.
- No. 252—Peerless Freezer Co. (Cincinnati), September 28, 1896—Cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 253—George F. Dana & Co. (Cincinnati), September 28, 1895—Post notices of the hours of labor required a day of minors in your employ mnder the age of eighteen years, in each room where employed, and keep a record of all such minors. Compiled.



- No. 254—Hunt Street Furniture Co. (Cincinnati), September 28, 1896—Keep passageway to fireescape on fourth and third floors clear of obstructions at all times; provide a casing in front of bottom wheel of band-saw; a guard for drag-saw; cover or countersink all projecting set-screws in collars on shafting. Complied.
- No. 255- Evans & Co. (Cincinnati), September 28, 1896-Provide a casing in front of bottom wheel of band-saw. Compiled.
- No. 256—Pfau Manufacturing Co. (Cincinnati), September 28, 1896—Post notices of the hours of labor required a day of minors in your employ, in each room where employed, and keep a record of all such minors. Complied.

# TABLE XI-TENTH DISTRICT-FACTORIES INSPECTED.

### CLERMONT COUNTY.

		·		Mun M	Number em ployed.		-me	pa19	-9110 -1011 -601
Number.	Name of firm and city, town or village.	Location.	Business or kind of manu- facturing.	Males.	Females.	Minors. Total number emp			For changes ord see note with co sponding numbe lowing this table
83	LOVELA Mullin & Snyder A. B. Brock	ND. Jackson and River streets Builders' wood-work	Bullders' wood-work	4.8			4 Weekly		
	1	HIGHLAND COUNTY	SOUNTY.			,			,
	HILLSBORO.			_	-				
12021	J. A. Head Pence & Geyler. Hilsboro Chair Co. James T. Maguire. Enterprise Planing Mill C		Yarns and flannels  Building material  Chairs Flour meal and feed Ruilding material	57.0 8 4.5 ∷ :	o 83	61 — 61	Weekly Semi-mo Weekly		118
ឆ្មន្ទ		C. P. & V. R. R. B. & O. S. W. R. R. Near denot	and had been	· · ·	eo -	o			
ន្ទន្ទន្ទ	M. F. Carrol.  Hill City Steam Laundry Cotton Mather.  Hillsboro Chair Factory			చెబట8 -::	7	-	10 11 8 30		
	GREENFIELD.								
882888	Greenfield Electric Light and Water Works Martin, Ferneau & Simpson Waddell Wooden Ware Works (No. 1.) Sun Manufacturing Co. Waddell Wooden Ware Works (No. 2.). F. L. MoLain Manufacturing Co.	Jefferson street	Water w'ts & elec. light Building material Wooden ware specialities Show cases, novelties, etc Sweat pads	25.83.78 :::	4-8	ox 28	Monthly	<b>3</b>	81
•	•Business suspended.								

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138	T. F. Browder Boden, Patterson & Co	Mereban street	Laundrying	€ 4 ₩	<b>o</b> o :		<del>7</del> 4 80	:::		
		LAWRENCE COUNTY.	COUNTY.							
	IRONTON.			_	_		_		_	
19 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Eagle Iron Co	Front street	Iron, etc	900	<u>·</u>	2	310	Semi-mo		
28	Lambert Brothers & Co	Seventh street.	<u> </u>		<u>· ·  </u>		- R 4		<del></del>	
25							. <del>Z</del> 8	: :	<u> </u>	8
308	R. S. Dupuy	Seventh street.		g 00		×	is a			; ;
02	Jouthern Wheel Stock Co						t- O	Monthly		
11	Penn Lamber Co.	:	Building material			61	8	Weekly		71
1/10	On Mayne Elective Light Co		Soup			-	8	Semi-mo		
1	Telule Sour Factory			<u> </u>	-	61 6	46	::	2	ř
Don	Long Comper Co					•	3 8	Weekly	<u> </u>	e :
ST. LE	NOON WOOD WILLIAM					m 	£ 8	Semi-mo		:
7	Trop Lumber I ron Co. Furnace/-		Fire brick	-			38	;;		
6	reells Name Austra Floor	: :		_	:	01	8°	Weekly		:
1	parket Fire Co.			- 2	-	01	.E	Semi-mo		: :
	Trongwin was crie co	Vernon and T	Electric power and light	2"	-	-	= «	Monthly		:
	Iron Line Fire Fractory	-	_	:	•		9 00	Semi-mo.		: ;
I. v.	Draw W. Digar Box		-		Ī	C3	æ ō	Woolly W		2
900	Forestright & Son Spoke Factory		Handles and spokes				. e			: :
W.	C. Kettelle and Works	East Ironton 178 Adams street	Buggies, wagons, etc.	<u> </u>	-	67	=	Weekly		
	J. L. on Hall and Works			6		· i	<u>6</u> 000	)		
No.	If the constant of the constan		Cross ties	 8	•	2	r gg	Semi-mo		! !
20 %	_	Ninth street and Park	Wagons and carriages	25		2	2 5	Weekly		į
00		:	Pig iron			9 00	8			:83
	de Oniva Iron Fron	49 North Second street	Stogles and cigars	4	<u>: :</u>		2 -	Weekly		: :
11	John Moor	_	Building material	<u>.</u>	-	-	•	:		:



TABLE XI-ELEVENTH DISTRICT-FACTORIES INSPECTED-Continued.

LAWRENCE COUNTY-Concluded.

i			1	Nur D	Number em- ployed.	ė	bjoλeg.	-ш-	oos po.
Number.	Name of firm and city, town or village.	Location.	Business or kind of manufacturing.	Males.	Females.	Minors.	Total number em	How often are of paid?	For changes order nate with corre ing number tol
	COALGROVE.								
<b>8</b> 3	98 Petersburg Fire Brick Co	On N. & W. R. R.	Fire brick, etc	88	1	••	24.88	Monthly	
				,				•	
8	Means, Kyle & Co	Obio river	Pig fron and car repairing	2	i	i		Semi-mo	
	VENUVIUS							•	
<u> 8</u>	Vesuvius Iron Co	Pedro P. O	Charcoal, etc	ຂ	Ť	i	ଛ	Monthly	
	OLIVE FURNACE.								
2	McGugin & Co		Pig iron	92	i		81	Monthly	•
	WATERLOO.								
88	Taylor & Sloan. J. H. Kelley	Symms oreek	Flour and meal	တေ			<b>∞</b> €0	Monthly	
	A BABIA.								
104	J. F. Slone	Symms creek	Flour, meal and feed	63	i		es.	Weekly	107
	GETAWAY.								
111	Bradshaw & Betts	Symms oreek	Flour, mesl and feed	61	i	:	69	Monthly	
	WILLOW WOOD.								
311	112   Jacob Holschub   Flour, meal and feed	***************************************	Flour, meal and feed	98		-	62	Share profits.	118

TABLE XI-ELEVENTH DISTRICT-FACTORIES INSPECTED-Continued.

### Scioro County-Continued.

dered corres- to fol- le,	For changes ore see note with o ponding number lowing this sab			!		:	÷			_				_				æ	2		
- <del>u</del>	How often are e		Weekly	Gemi mo	Weekly	: :		,			Weekly						Weekly		Monthly		Weekly
ıbjoλeq.	Total number em		28.0	ת	8	<b>m</b> g	8 4	'n	Ì		11	_		-			40	-10	∞	_	7
ġ.	Minors.			Ī					i					Ì		_		7			
Number em ployed.	Females.		i	Ī	31	ě				:	21										
n Z	Males.		28.0	ş	<b>8</b>	60 M	9	100		:	ъ			Ī			40	-	∞		*
•	Business or kind of manu- facturing.		Castings, etc	Scrapers	Clothing	Repairs	Whishey ate	Repair shop.	Paving brick	Woolen goods	Clothing		Sawed stone		***		Tile, etc.	Blankets, yarns, etc.	Drain tile, etcButter		Flour, etc
	Location.		Fourth street	Good street		_	Chilleothe nike	_		Front street	Second street.							On Pine creek			N. & W. R. R.
	Name of firm and city, town or village.	PORTSMODTH-Concluded.	Portsmouth Foundry and Machine Works	Rork Scraper Works	Santford, Varner & Co.	A. Brunner	Spring Lane Distilling Co.		Portsmouth Paving Bric		Haas, Swartz & Co	BUENA VISTA.	Buena Vista Freestone Co	John Miller & Sons	Buena Vista Freestone Co.	WHERIKESBURG.		Waesiersburg Orennery		LUCANVIILE.	Vogel & Banks Lucasville Grain Co
	Number.		83	J 15	 }	-	-			2 4					\$		_		2.8		<u> </u>

\*Not in operation. +Closed permanently.

	2	<b>26</b>
108 Weekly	Weekly Monthly Weekly	Weekly 59
108	<b>3</b> 200	404
••	20,4 ± 0.2	100
90	<b>.</b>	
		484
Lumber, etc	Fire prick, etc	Flour, etc
	Do Silver. Elre brick, etc. Building material Bushing material	B. & O. S. W. R. R
NEW BOSTON.  Manawha Lumber Co	Scioto Star Fire Brick (Scioto Fire Brick Co Mary J. White Anthony Thompson	58 J. Peiper & Co. 59 Webster Fire Brick Co.
28	2222	828

### ELEVENTH DISTRICT—FACTORIES.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED
  AND DATE OF ISSUE.
- No. 10—Portsmouth Veneer Works (Portsmouth), February 3, 1896—Case in all shafts, belts and pulleys operating near floor. Compiled.
- No. 11—Burgess Steel and Iron Works (Portsmouth), February 3, 1896—Provide a ventilator over oil tank used for tempering steel springs, ventilator to be made hood-shaped and placed as close to tank as possible and to extend to the outside of building to carry fumes and gases from tank. Compiled.
- No. 27—Cuppett & Webb (Portsmouth), March 4, 1896—Case in pulley operating on the outside of building; provide saw-guard for rip-saw located in rear portion of building and keep same in use. Complied.
- No. 54—Scioto Star Fire Brick Co. (Sciotoville), April 16, 1896—Provide a substantial casing or railing around exposed portion of fly-wheel of engine, also on both sides of dry-pan in No. 1 building, as explained by the Inspector. Compiled.
- No. 59—Webster Fire Brick Co. (South Webster), April 16, 1896—Case in spur gearing on Columbia press; cover gearing on master wheel. Complied.
- No. 66—Eagle Brewery (Ironton), May 12, 1896—Provide a casing in front of main pulley in bottling department. Complied,
- No. 71—Penn Lumber Co. (Ironton), May 12, 1896—Provide hand-railing at foot of stairs next to bull wheel and belt. Complied.
- No. 73—Ben Cranston (Wheelersburg), July 15, 1896—Provide a guard in front of belt driving twister, guard to extend from shaft to twister in northwest corner of room on second floor. Complied.
- No. 75—J. J. Cranston (Wheelersburg), July 15, 1896—Provide protection around belt operating cream separator, protection to extend from countershaft to separator. Complied.
- No. 78—Fearon Lumber Co. (Ironton), July 23, 1896—Provide saw-guard for rip-saw in planing-mill department; belt-shifters for all shift-belts and keep same in use. Complied.
- No. 89—C. Wright (Ironton), July 23, 1896—Provide belt-shifters for all shift-belts not having same and keep them in use. Complied.
- No. 103—John Peters Iron Co. (Ironton), July 31, 1895—Provide a substantial railing around opening in platform in engine-room in which pitman and fly-wheel work, to prevent employes coming in contact therewith. Compiled.
- No. 107-J. F. Stone (Arabia), July 31, 1896—Cover pulleys and belt driving corn cleaner on third floor. Compiled.
- No. 112—Jacob Holschuh (Willow Wood P. O.), August 27, 1896—Case in main belt operating through first and second floors near main entrance to mill. Complied.
- No. 118—Pence & Geyler (Hillsboro). September 4, 1896—Supply all machines with loose pulleys not so provided and belt-shifters for all shift-belts, so that machines can be stopped when not in use without throwing belts off pulleys; case in all exposed countershafts, belts and pulleys operating near floor. Complied.
- No. 129—Greenfield Electric Light and Water-works (Greenfield), October 7, 1896—Provide a substantial railing along side of belts driving dynamos; would suggest that you make railing out of one and one-half inch gas pipe. Complied.
- No. 135—G. W. Price (Greenfield), October 7, 1896—Provide a substantial casing or railing aroun<sup>d</sup> main belt, casing to extend from engine to main shaft. Compiled.

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TABLE XII—MERCANTILE ESTABLISHMENTS INSPECTED DURING FISCAL YEAR ENDING NOVEMBER 15, 1896.

İ								
				Number employed.	mber em- ployed.	Joyed.	-	bered for serior
Number.	Name of firm.	Location.	Goods sold.	Males.	Females.	Total number emp	How often are em	enganga tow see and with occupants sonding mindence sowing this
	ATHENS.							
-	Steadman, F. C	Coach street	Groceries (wholesale)	-		-	Monthly	-
	CABBOLLTON.						•	
63	Campbell, Lope & Beeme	Main street		83	-	63		
	CLEVELAND.							
84	Crow & Whitmarsh Taylor, William, Son & Co	5 Euclid avenue Euclid ave. and Prospect street	Groceries	82	3.6	22.02	Weekly	4
	COLUMBUS.							
2000	Miller's Fair, L. J. Miller	39 East Spring street	Queensware Boots and shoes (wholesale)	17.0	7	17.0	Weekly	•
	GBNBVA.				_			
- × • • • • • • • • • • • • • • • • • •	Barnum, Charles. Craine, Charles. Ford, A. J. Gillette & Co. Warden, E. M.	Main street.	Hardware Drugs Groceries Groceries	∞ ∞ <del>1</del> 4 40		· <del></del>	Weekly	
	Piqua.		•					
2	Todd Bros	Main and Ash streets	Books, stationery, wallpap'r	-	 83	• 	Weekly	
13	PORTEMOUTH.  Rellley, W. W. & Co	. Second street	Books, stationery, wallpap'r	81	, ,	ъ 	Weekly	

### MERCANTILE ESTABLISHMENTS.

DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.

- No. 1—F. C. Steadman (Athens), November 17, 1896—Remove all rubbish from basement and keep same in good sanitary condition at all times. Compiled.
- No. 4—William Taylor, Son & Co. (Cleveland), October 28, 1896—croperly fill out accident blank and report accident which caused the death of one of your employes some time since, and forward same to department, and in future report all accidents as they occur. Compiled.
- No. 5—Miller's Fair, L. J. Miller (Columbus), December 7, 1896—Provide suitable seats for the use of female employes and permit use of such seats at all times when use will not interfere with the duties for which they are employed. Compiled.

### STATISICAL TABLES

OF

### Factory and Mercantile Buildings Inspected

AND

CHANGES ORDERED.

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TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR.

### FIRST DISTRICT.

For order see corresponding number following this table.	
Means of egress.	escape,   stairway,   escape,   stairways   escape,   stairways   escapes,   stairways   stairways   stairways   stairways   stairway   stair
Construction.	4 story brick 5 story frame 6 story brick 1 & 2
For what purpose used.	Mfg. electrical appliances Stove warehouse. Stove warehouse. Mfg. elewing gun, etc. Mfg. leather belting. Mfg. hollow ware, etc. Mfg. hollow ware, etc. Mfg. bulloring. Mfg. bulloring. Mfg. bulloring. Mfg. bulloring. Manufacturing electry. Manufacturing brass goods. Manufacturing brass goods. Manufacturing costs. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. office fixtures, etc. Mfg. summer clothing, etc. Landerfeating office. Mfg. fixtures, office. Mfg.
Locution of building.	H-46 Sheriff street East Madison avenue Viaduct and Merwin streets Viaduct and Merwin streets 21-25 Sooth Water street. Madison at & Nickle P. R. Ealte and Coe street. 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 29 Done street 20 Done street
Name of owner or agent and city or town.	CLEVELAND.  Adams Extate Anacricum Washboard (Yo Atwater Extate (W. W Baldwin, agent). Same Aurora Vapor Stove Co. Aurora Vapor Stove Co. Bartunek J. Brooks (Oil Co. Brooks (Oil Co.)
Хитрег	

### INSPECTOR OF WORKSHOPS 1

82 8		£4 4	<b>3.</b> 22.2	8 88 2 8
		2 stairways Doors 2 stairways 1 stairway	Doors 1 escape, 3 s Doors 1 stairway . Doors 3 stairways	
1 story frame	1 story brick & frame 4 story brick 1 story frame 3 story brick	1 story frame 2 story brick 2 story brick	4 story brick story frame	2 story frame & brick 2 story frame
Manufacturing coats clothing coundry	Laundrying Mfg hardware specialties Galvanizing and machine shop Manufacturing brass goods	Mfg. steel hollow-ware, etc Manufacturing veneered doors. pop. soda water, etc wanning, etc	Laundrying Wanufacturing cloaks Wanufacturing cloaks Coats Coats Oli refluery Oli refluery Coats	Manufacturing paints, etc
Rear 78 Petrie street  134. Woodland avenue Hamilton street Central ave. and C.& P.R.R.	Rear 1225 Euclid avenue	Havard St. & C. C. & S. R. R. Hamilton street. Guard street. 34 Merwin street 52 Il Ontardis street 53 Henry Street	2108 Broadway T Petrife sirect G Chestnut street Rear 33 Warren street East Madison avenue Opposite Sherman street.	Hamilton and Kirtund sis. 58 Hill street. 113-28 Paul street. 113-38 Paul street. 115 St. Clair street. 168 Main and River streets. 168 Main and River streets. 169 Personer avenue. 169 Personer aven
	ST Cleveland Electric Railway Co	44 Cleveland School Furniture Co. 42 Cleveland Samphing and Tool Co. 43 Cleveland Samphing and Tool Co. 44 Co-operative Stove Co. 45 Cowless J. G. W.	447 Diamond Steam Laundry Co.  48 Divoky M.  49 Doorman, F. D.  50 Dunoesky, J.  52 East Fuld Foundry Co.  53 Fair Oil Co.  54 Februarian Co.	Filters (11) Paint and Vanush Co.  *** *** *** *** *** *** *** *** *** *
			45	· · · · · · · · · · · · · · · · · · ·

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

### FIRST DISTRICT-Continued.

For order see correspond- ing number following this table.	82882 82882
Means of egress.	Doors  2 stairways 2 stairways 1 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairway 2 stairway 3 stairway 3 stairway 2 stairways 3 stairways 3 stairways 3 stairways 5 stairways 5 stairways 6 stairways 7 stairways
Construction.	story frame
For what purpose used.	Manufacturing coats pants and oilks.  Architectural from works.  Manufacturing eather work.  Planing mill annory machines branched annufacturing shirts, etc.  Wanufacturing shirts, etc.  Coats, etc.  coats and electric fittures.  coats and pants  coats and pants  pants.  Lubricating oil  Baker!  Mig. stores.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  pupper boxes.  Mig. stores.  Sing stores.  Mig. stores.  Sing stores.  Manufacturing wringers.  men's coats.  Manufacturing wringers.  Manufacturing wringers.  Manufacturing bollers, etc
Location of building.	
Name of owner or agent and city or town.	CLEVELAND—Continued. Kozaka, P Kutus, T Kutus, T Kutus, T Kutus, T Kutus, T Kutus, I Lakus, I Lakus, I Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J Lande-Sman, J March
Number.	87 x 38 28 28 28 28 28 28 28 28 28 28 28 28 28



### INSPECTOR OF WORKSHOPS A

### ### ### ### ### ### ### ### ### ##	
2 escapes 2 stairw'ys Doors 1 escape   istairway.   escapes 2 stairw'ys Doors 1 stairway   stairway	Doors
8 story frame  1	1 story iron
Mfg. ladies' shirt waists, etc.  Manufacturing pants and coats  Manufacturing pants and coats  Manufacturing cloaks  Printing office.  Manufacturing cloaks  Manufacturing cloaks  Cigar factory  Cigar factory  Manufacturing cloaks, etc.  Mfg. grey iron casting.  Electric power house, etc.  Mfg. grey iron casting.  Electric power house, etc.  Mig. grey iron casting.  Electric power house, etc.  Mig. grey iron casting.  Electric power house, etc.  Mig. grey iron casting.  Electric power house, etc.  Cigar factory  Manufacturing pants and vests  Cigar factory  Printing office.  Cigar factory  Wannfacturing sand compling wool.  Power house and machine shop  Weaving  Weaving and combing wool.  Storing and merding goods.	
	Aetna street
High Root & McBride  Round, S. & Son  Schauer, Henry  Schauer, Henry  Schauer, Henry  Severance Estate (L. Severance agt.)  Severance Estate (L. Severance agt.)  Serence Estate (L. Severance agt.)  Serence Estate (L. Severance agt.)  Serence Estate (L. Severance agt.)  Serence Estate (L. Severance agt.)  Serence L. S. Severance agt.)  Serence L. S. Severance agt.)  Sigler, L. M.  Samonow, Mrs. Francis.  Samonow, Mrs. Francis.  Samonow, Resec.  Samonow, Resec.  Samonow, Resec.  Samonow, Resec.  Samonow, Resec.  Samonow, Resec.  Samonow, Resec.  Samonow, Resec.  Serence Compando Pant No. 2)  Serence Astronom.  Seren	
HIT Root & M. Brond S. Bliff Round S. Bliff Schouler Schouler Schouler S. Severano S. Seve	The state of the s

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued..

### SECOND DISTRICT.

For order see corressponding number fol- lowing this table.	E	22	E 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Means of egress.	3 story brick & frame   1 stairway	4 stairways	2 stairways Doors Stairways 1 stairways 2 stairways 1 stairway Doors 2 stairways 1 stairways 2 stairways 1 stairway 1 stairway 1 stairway 1 stairway
Construction.		4 story frame	2 story brick 3 story frame 1 story brick & frame 2 story brick & frame 3 story brick & frame 1 story frame 2 story brick 2 story brick 2 story frame 2 story brick 2 story frame 4 story frame 4 story frame 5 story frame 6 story frame 7 story frame 7 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame
For what purpose used.	Market and Main streets Laundrying	Flouring mill	Manufacturing bow sockets, etc. Incardescent light plant. Power house and steel forks, etc. Foundry and machine shop Polisbug leather Flour and feed mill Manufacturing rubber clothing. Manufacturing rubber clothing. Manufacturing rubber clothing. Manufacturing rubber clothing. Manufacturing rubber clothing. Manufacturing rubber clothing. Manufacturing rubber clothing. Flour and feed mill Flanting mill Flourershop gallery Flour and feed mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill Flanting mill
Location of building.			Prospect street  Prospect street  Prospect street  I Bridge street  Ann street  T Bridge street  Fisk and Gary streets  Fisk street  10 Center street  10 Center street  10 Chief street  11 Chief street  12 Phis street  12 Phis street  12 Phis street
Name of owner or agent and city or town.	AKRON. Brown, Harter & Brown	ULA.	Ashtabula Carriace Bow Co Ashtabula Hide and Leather Co Ashtabula Municipal Lighting Plant Ashtabula Rapid Transit Co Ashtabula Rupid Carist Co Ashtabula Pol Co Ashtabula Rupid Co Barber & Noyes Bradley Manufacturing Co Good P. P. Hall Fagar London Rubber Co McKinnon, W. S. Newell L. C. & Son Nickolson, John Platenk Iron Works Fatt & Duna Tatt & Duna Tyler A. H Williams, George E
Number.	E	22.1	E568733737375



### INSPECTOR OF WORKSHOPS AND

188	<b>8 8</b>	98	108	212 212 213
1 stairway 1166   1841   185	5 stairways. 1 stairway. Doors. 1 stairway.	1 stairway	Doors 8 stairways 807 8 Stairways 1 stairway 1	2 stairways
2 story brick	5 story frame	l story frame	3 "	2 stairways
Electric light plant. Packing vegetables. Fed mill. Laundryling. Planing mill.  Mfr. tin plate. oil cans. etc.  2 story frame & brick. 2 story frame.	Flour and feed mill	Repairing machinery 1 story frame	Planing mill Flouring mill Manufact ing woolen goods Planing mill Mfg. house furnishings	Manufacturing palls
State street		rt. Doek Co	Crawford street.	Water street
CONNEAUT. Conneaut Electric Light Co. Cummins. D. Heyer, William Merriam J. Road, H. E. Road, H. E. Record, Manufacturing Co. Wright & Heavens.	Creston Miling and Produce Co	FAIRPOH Pittsburgh & Lake Erie Fuedericks	Fires (one, E. T. Co. Prouring Co. Properties A. J. Son. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. L. Stevenson, M. Ste	GARMA
<b>899</b> 887777898	202 203 203 203 203 203	900	Part Can	ON THE

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

SECOND DISTRICT—Continued.

or order see corre- sponding number fol- lowing this table.		88 8	22 22 26 25		88 5
Means of egress.	1 stairway	2 stairways	Doors 6 stairways 1 stairway	Doors	2 stairways
Construction	2 story frame	1 & Ssty. stone & frm. 2 story frame	1 story frame	1 story frame	8 story frame
For what purpose used.	Feed mill, etc	Repairing cars	Saw and planing mill	Manufacturing palls 1 story frame	Leundrying and felloes. Mig. office supplies, etc
Location of building.	Walnut street	Water street  Water street Franklin street Water street	Factory street		ks. Smith Road Nearion
Name of owner or agent and city or town.	JEFFRESON.  Beach, S. & Son Jefferson Power and Light Co	KENT.  Frie Rallway Car Repair Shops Fisher Bros. Frett Waterworks and Electric Light Co. Parsons, T. G. Rallway Speed Recorder Co. Williams Bros.	Maddon.  Austin & Stocking. Exchange Bank of Madison.  Miller & Lapham Mantila.	Hine & Cook	MEDINA. Bradway, Clinton. Medina Bending Works. Root, A. I. Co. (No. 1). Same (No. 4).
umber.	น และม	333 <b>3333</b>	22.22.22	ä	88323



22.24	72 8 8	8 8 88 8	<b>3</b> 22 23 28 38 38 38	278
6 stair ways	ístairway 2 stairways Doors 1 escape 2 stairwars 8 stairways 1 stairway Doors	stairway	Doors 2 stairways 2 stairways 1 stairways Doors 2 stairway 2 stairway 2 stairways 2 stairways 2 stairways 2 stairway 1 stairway 2 st	8 stairways
4 story frame 3 story brick & frme. 2 story frame	2 story brick	story brick & frame story frame story brick & store story frame & brick	story frame	Story frame & metal 2 story brick
Flour and feed mill	Manufaturing in jectors	Mfg. veneer machines 28 Mfg. metalic binding 28 Mfg. metalic binding 28 Mfg. salah binding doring military binding military binding military salah binding military binding military binding military salah binding military bindin	Planing mill.  Chair factory.  Shoe factory.  Mig. tile and marbies.  Shoe factory.  Mig. tile and marbies.  Cas and electric light plant.  Intundrying.  Mig. coaches and hearses.  Flour and feed mill.  Plour and feed mill.  Mig. hardware specialties.	Flour and feed mill
Near C. L. & W. station	West Market street	Jackson and Allen streets  Elm and Railroud streets  437-443 Main street  Prospect street  Fast Nain street  Fast Main street  E. & M. S. R. R.  Foot of Main street  Foot of Main street  Foot of Main street  Foot of Main street  Foot of Main street  Foot of Main street  Foot of Main street	A tlantic street.  Sycamore street.  Chestnut and Washington sts.  Prospect street.  Mill street.  Main street.  Main street.  Main street.  Diamond street.  Diamond street.	Flour and feed mill
Shepard, O. C. Co	CO	uring Go.	Baddwin D. L. & Sons.  San Buckey Ravenum  Buckey Ravenum  Sin Buc	Wilk DS SEVILLE.  M. D. D. SEVILLE.  S. S. S. S. S. S. S. S. S. S. S. S. S. S
25.2 2.4 2.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3	22 22 24 25 25 25 25 25 25 25 25 25 25 25 25 25 2	Safaras A	· · · · · · · · · · · · · · · · · · ·	

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

# SECOND DISTRICT-Continued.

For order see corresponding this table.			88	868	3888
Means of egress.	2 stairways   stairway   boors		2 escapes & 3st'rw'ys Doors. 8 stairways Doors.	1 stairway	2 story brick 2 stairways 294 3 1 istairway 296 1 istairway 296 1 istairway 296 1 story frame 2 stairways 296 1 story brick 1 stairway 296
Construction.	2 story brick	2 story brick	8 story frame 1 4 1 1 story frame & brick	2 story brick	2 story brick
For what purpose used.	Mfg. machines and clutches Manufacturing injectors Pluring matches	<u>a</u>	Finishing furniture  Purniture factory  Flour mill  Planing mill  Manufacturing tow	Manufacturing brick	Mfg. clay working machines. Flour and feed mil. Manufacturing baskets. Power house. Feed mill. Planing immer Manufacturing brick and tile. Pumping sta. & elec. light plant.
Location of building.			Southeast of Salem	FFE.	### Near Nickie Plate R. R.  #### Near L. S. depot. R. R.  ###############################
Names of owner or agent and city or town.	WAISWORTH. Barnes, John A Ohio Injector Co.	K Co Co ST SALKM.		WICKLIFFE. Buckeye Brick Co. Owen, W. B.	
Number.	8358	558	\$555 <b>3</b>	<b>3</b> 83	85588888888888888888888888888888888888

### INSPECTOR OF WORKSHOPS AND

_	<b>! !</b>	3088	817	<u> </u>
	2 & 3 story br'lk&fr'me 8 stairways.  1 story frame Doors 1 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairways 2 stairways 3 stairw	2 htairways 847 2 stairway 300 2 stairways 1 stairways	Doors 1 stairway 2 stairways 817	Openings
	2 & 3 story br'k&fr'me 1 story frame	2 2 htairways 2 2 htairways 2 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story brick 1 stairway 2 story brick 1 s	l story brick 2 story, frame	story frame
	Machine shop	Furniture factory Flour and feed mill Manufacturing coach pads. Laundrying Manufacturing pianos.	Hending felloes Electric light plant Manufacturing brick	Manufacturing from tubing   Istory frame.
_			Columbus avenue	West Federal street Wick avenue Bane and Champion streets West Federal street
Wooster.	Barrett, B., Sons. Boor & Son. Clark, G. H. Curry, D. C., & Co. Hellnez, H. J.	Kauke, J. H. Landes & Snoke. Plandes & Cray. Standard Coach Pad Co. Thomson & Davis. U. S. Whip Co.	Wooster Bending Works Wooster Electric Co. Wooster Shale Brick and Clay Co. Wooster Sliding Blind Co. YOUNGSTOWN.	And American Tube and Iron Co  Mardrews Bros Co  Same (S. L. Clark, agt.)  Hypert K. Co.  Iron and Coal Co  Same  Con Co  Same
	200 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	28 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		N. S.

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TABLE XIII-FACTORIES BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

## SECOND DISTRICT-Concluded.

For order see corres- lowing number (ol- lowing this table.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	202	
Means of egress.	Doors  S stairways  Boors  Doors  E stairways  Openings.  2 stairways	i stairway	Doors.
Construction.	1 st ry frame & brick 1 story frame & brick 1 story brick 1 story brick 1 story brick 1 story frame 2 story frame 1 story frame 2 story brick 1 story frame 2 story brick 3 story brick 3 story brick 3 story brick	3 story brick,	1 story frame
For what purpose used.	Laundrying engines  Manufacturing engines  Con iron and steel bridges.  Roundry Carriage factory Carriage factory From the bouse  Manufacturing gas  Mig. Iron and steel rooding.  Mig. elephone boxes, etc.  Mig. elephone boxes, etc.  Mig. the ware  Mig. the ware  Mig. this ware  Mig. pig iron.  Mig. pig iron.  Mig. washed metal.  Fower house.	Cigar factory	Electric light plant
Location of building.	North and Rayen avenues   Laundryin Hamilton street	Main street   Cigar factory	rsing, agt. ).
Name of owner or agent and city or town:	Thornton C Tod, William & Co. Tod, William & Co. Younstown Bridge Co. Younstown Bridge Co. Younstown Bridge Co. Younstown Electric Light Co. Younstown Electric Light Co. Younstown Fron and Steel Roofing Co. Younstown Iron and Steel Roofing Co. Younstown Pattern Works. Younstown Specialty Manufacturing Co. Youngstown Specialty Manufacturing Co. Youngstown Specialty Co. Same Same Youngstown Riectric Street Ry. Co.	BELLEVUE. Eagle, Mrs C	City of Clyde
Number.		ž.	#1288 #1288

### INSPECTOR OF WORKSHOPS AND

istairway	stairways   375   stairways   375   stairways   375   stairways   1   stairways   378   stairways   378   stairways   1   stairways   1   stairways   1   stairways   2   stairways   2   stairways   2   stairways   2   stairways   2   stairways   2   stairways   2   stairways   2   stairways   378   stairways   3	
2 story brick 2. stone	2 story brick 4 story frame 2 story frame 2 story frame 2 story brick 2 story brick 2 story frame 2 story frame 2 story frame	2 & Story frame 2 & S-story brick. 2 & Story brick. 2 & Story brick. 3 & Story frame 2 & Story frame 2 & Story frame 2 & Story frame 3 & Story frame 5 & Story frame
Mfg. knives & prun'g shears 2 story brick	Manufacturing linaeed oil.  Planting mill.  Manufacturing bloyeles.  Mig. bloyeles andles.  Mig. bloyeles andles.  Mig. sash, doors, blinds, etc.  Mix. telephones, etc  Laundrying.  Elaundrying.  Bottling works.	Míg. drop forgings
	Center street  2 Pine street  Lodi street  Cedar street  68 West Broad street	Near L. S. & M. S. depot. Earl State Street. Garrison street. Ook street. North Front street. West State street. Front street. Front street. Rear 30 Front street. Water street. Nuter Street. Nuter Street. Nuter Street. Nuter Street. Nuter Street.
Jones L. A. & A. B. McConnell Bros. ELYRIA.	Diamond Linseed Oil Co  Elyria Lumber Co  Elyria Milling Co  Fay Manufacturing Co  Farsch, T  Rawson, S. B  Rawson, S. B  Sam  Reching G  Schnuerer, L  Topliff & Ely Co	Berry & Davis  See Christy Kaife Co.  See Christy Kaife Co.  See Christy Kaife Co.  See Christy Raife Co.  See Cha
373	877 877 877 877 877 877 877 877 877 877	THE STATE OF THE S

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### THIRD DISTRICT—Concluded.

For order see corre- sponding number fol- lowing this table.	428 428 428 438 438 438 438 438 438 438 438 438 43
Means of egress.	stairway   414   Doors   420   Stairway   420   Stairway   420   Stairway   420   Stairway   420   Stairway   420   Stairway   420   Stairway   430   Stairway   430   Stairway   430
Construction.	Story france Story france Story brick Story ivon Story ivon Story ivon Story ivon Story ivon Story ivon Story france Story
For what purpose used.	Manufacturing steel rails   Story frame   Doors way   Doors   Story frame   Doors   Do
Location of building.	Manufacturing steel rails   Story from   Istairway   144
Name of owner or agent and city or town.	LORAIN—CC Johnson Co. Same Same Same Same Same Same Same Same
Number.	±45±4±50566626824286 <u>88888888</u>



TON.  ON.  TON.  TON.  ON.  ON.  ON.  ON	_	_				MB						_	<b></b>
Main and Linwood streets   Printing office   Satory brick   1 stair way		<b>.</b>											
On F. Pt. W. & W. Ry  No N. Y., C. & St. L. Ry  N. Y., C. & St. L. Ry  Nain street			1 stairway 1 '. '. 1							Doors.		Doors	
On F. Pt. W. & W. Ry  No N. Y., C. & St. L. Ry  N. Y., C. & St. L. Ry  Nain street			2-story frame			l-story frame			1-story frame	1-story frame	1-story frame	1-story frame	
Main and Linwood streets  Near Big Four R. R.  POURTH I  Main street  Main street  N. Y. C. & St. L. Ry  N. William Street  Walnut street	Printing office			ISTRICT.	•	Mfg. coiled elm hoops	Cigar factory			Mfg. drain tile, etc	Mfg barrel staves, etc	Mfg. barrel staves, etc	Mfg. show-cases  Mfg. plows and harrows  Flour and feed mill.  Pumping station.  Flour and feed mill.  Brewery.  Mfg. pumps, tanks, etc.
ON.  T.			Near Blg Four R. R.	FOURTH D			Main street			On F., Ft. W. & W. Ry			Cherry street
	NORWAL Wheaton D		Palmer, G. H. & Co Warwick Electric Co Wellington Machine Co		ALVORDTON.			AVIS.			Timble W BRICKTON.	ON.	Bryan Buyan.  Bryan Candy and Cracker Case Co  Bryan Electric Co  Bryan Electric Co  Bryan Ploy Co. & P  Christof Bryan  Clickly & Son.  Ployelly with Co.  Flant and Cracker Case Co.  Flant programment of the Co.
# ## ### ###### ######################	2	į	######################################			22425			300		\$\$\$		

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

# FOURTH DISTRICT-Continued.

	For order, see corresponding number fol- lowing this table.		466		£ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		\$		<b>88</b>
	Means of egress.		2 story frame		Doors.		i stairway Doors '' I stairway		Doors
	Construction.		2 story frame & brick 2 story frame		1 story frame 1 " 2 " 2 " 2 Story frame 2 story frame		Frame		1 story frame
T—Continuea.	For what purpose used.		Laundrying		Manufacturing axe handles. Mfg. barrel staves, etc Saw-mill. Electric light plant. Mfg. building material. Front and feed mill. Front gaxe handles. Manufacturing axe handles. Mfg. blankets, yarn, etc	•	Grain elevator		Manufacturing drain tile Saw-mill. Grain elevator
FOURTH DISTRICT—Continued	Location of buildings.		Lynn street		West Sycamore street		N. Y., C. & St., L. By T., St. L. & C. Ry N. Y., C. & St. L. Ry T., St. L. & C. Ry		Saw-mill 1 story frame Doors.
	Name of owner or agent, and city or town.	BRYAN-Concluded.	Long & Riggs	Columbus Grove.	Beiford, J. H. Buckeye Stave Co. Same Columbus Grove Electric Light Co. Craw ford, J. M. Day, A. H. Dones, J. F. & Sons. Pangle & Pangle	CONTINENTAL.	Buckeye Elevator Co Buckeye Stave Co Same Continental Electric Co Morris, At	CONVOY.	Barter & Benson Evereut, David Lorber, L. W Neizer & Co
	Number.		\$ 5 5 <b>\$</b>		644444 <b>44</b>		£3232		£ <del>2</del> <del>2</del> <del>2</del> <del>2</del>



			2 32	68	201	2008		•	519 519 519 519 519
	Doors		Doors		1 Stairway	i stairway Doors i stairway	Doors	Doors	Doors stairway. Doors
	1 story frame		1 story frame	1 story frame	2 story frume 1 2		l story frame	1 story frame	Frame Frame Istory frame Story frame cotta Istory frame cotta Istory frame Cotta Istory f
	Manufacturing barrel staves		Laundrying and dyeing	Mnfg. handles and spoke stock Basket factory			Manufacturing darrel staves 1 story frame	Manufacturing barrel staves 1 story frame	Manufacturi'g barrel staves, etc   1story frame   Frame   Frame   Electric light plant   1 story frame   1 sto
			West Third street	High street					C. H. & D. Ry
CROSWELL.	Cover & Bruen	DELPHOS.	Brittinzham, W. F. Delphos Electric Light and Power Co. Delphos Gas. Light Co. Mart Fence Co. Miller & Morton. Same Ohio Wheel Co.	EDGERTON. Briegs & Walter Farmham E. A. Kelley, M. & Co. Kelley, M. & Co.	GLANDORF. Fillerbrock, Tphaus & Co.  Nulle, F. N. & Co.  Nuller, J. T.	Churchill & Co.	Welsh & Stoller Kalida. Welsh & Stave Co	G. H	March. Telfsic.
	<del>2</del> 8	3	<b>육</b> 및 육 및 등 및 등 및 등 및 등 및 등 및 등 및 등 및 등 및 등	동 출 꽃 (중 ).	ing Tog	<i>( , , , , , , , , , , , , , , , , , , ,</i>		015	5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

# FOURTH DISTRICT-Continued.

For order, see corresponding number fol- lowing this table.				<b>3</b> 8	2
Means of egress.	Doors	Doors	1 stairway	S stairways.  Doors.  I stairway.  Stairway.	2 stairways
• Construction.	2 story frame	1 story frame	1 story frame	2 story frame	2 story frame
For what purpose used.	Prig. office & wkly. newspr 2 story frame	Saw mill	Lumber and planing mill Manufacturing barrel hoops: Manufacturing barrel staves	Mfg. hard wood lumber, etc 2 story frame  Prig. office & wkly newspr 1 story brick Flour and feed mill.  Man f g oreamery butter 3 story frame  Electric it. pt. & pumpg. stn. 1 story brick  Mig. grey from castings, etc. 2 story frame	Mig. handles and furniture. 2 story frame
Location of building.	C. H. & D. Ry	F. Ft. W. & W. Ry	MONTPELIER	Mill street  Main and Broad streets  Monroe street  Depot and Bryan streets	Carmaine street.
Name of owner or agent and city or town.	Smith, W. W. Smith Bross Townsend, O. E. & Co.		Preston J. L. Wheeler Bros.	Cheese Mrg. Co	
Number.	519 539 531	822	25 25 25 25	200 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	25 33 26 25

	INSPECTO	OK OF WORKSE	IOPS AN
	25.5	55. 55. 57.	
	8 story frame         1 stairway           2 story brick         Doors           2 story frame         2 stairways           1 story frame         Doors           2 story frame         Boors           3 story frate         Doors           4 story frate         Boors           5 story frate         Bos           6 story frate         Boors           2 story frame         I stairway           2 story frame         I stairway	Frame istory frame istairway story frame istory frame story frame story frame story frame istairway brick story brick story frame story frame story frame story brick story story brick st	1 stairway Doors 2 stairways
	2 story frame.  1 story frame.  2 story frame.  1 story frame.  3 story frame.  2 story frame.  2 story fra Tere.  2 story frame.  2 story frame.  2 story frame.	Frame rame 2 story frame 2 story brick 3 story frame 1 story brick	1 story frame 2 story brick 2 story frame 1
	Flour and feed mill, etc.   2 story frame   1 stairway	Grain elevator Traine Frame 1 stairway 551  Mig. brick and drain tile 2 story frame 582  Mig. brick and drain tile 2 story brick 584  Ptg. office & w kly newspaper 2 story brick 584  Mig. barrel heading 1 story frame 584  Mig. barrel heading 1 brick 584  Ptg. office & w kly newspaper 2 story brick 584  Story br	Mfg. pail stayes.  Ptg. office & w'kly newspaper 2 story brick
	C., H. & D. By.	C., J. & M. Ry. Jackson street Perry street C., J. & M. Ry. Perry street.	Merrin street. N. Y., C. & St. L. Ry
OTTAWA.	Aunesser, Wm Mrs J Clover Creamery Co Clover Creamery Co Gandan, Mrs J Handen & Cummer Handen & Cummer Handen & Cummer Kinder Geo. D Kinder Geo. D Ottawa Electric Light Co Ottawa Gate Manufacturing Co Standard Wheel Co Standard Wheel Co Standard Wheel Co Williams, G. C. C. H. & D. Ry	Herzer Elevator Co Herzer Elevator Co Rayam. Con & Co Thompson L.R. Wedmann, Paul Same Same Pavns.	Cowell, Edwin Finith, J. S. & Jones. Finith, J. S. & Lunber Co. Hyman Henry Decree Furniture & Manufacturing Co.

18 28 28 E

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

# FOURTH DISTRICT-Continued.

For order see corresponding number tol- lowing this table.	574 575 576		25 25 25 25
Means of egress.	1 stalrway	Doors	stairway  Stairway  Stairway  Stairway  Stairway  Stairway
Construction.	2 story frame 3 story brick. 2 story frame 2	1 story frame	8 story brick. 2 story frame. 8 story brick. 8 story brick. 2 story frame. 2 story frame. 2 story frame. 2 story frame. 2 story frame & brick. 8 story frame & brick. 8 story frame. 8 story frame.
For what purpose used.	Man'turing hardwood lumber Flour and feed mill	Mfg. barrel hoops, etc	Manufacturing pianos.  Flour and feed mill.  Electric light plant.  Printing office and newspaper.  Flour and feed mill.  Myrehouse mill meter.  Myrehouse carriage mater!  Manufacturing lumber retues.  Manufacturing lumber crates.  Manufacturing lumber crates.  Manufacturing lumber crates.  Manufacturing lumber crates.  Manufacturing lumber crates.  Manufacturing lumber crates.  Flour and feed mill  Grain elevator.  Flour and feed mill  Grain elevator.  Flour and feed mill  Flour and fee
Location of building.	L. S. & M. S. Ry		Jackson and Harrison sts  Jackson street  124 Fast Main street  Jackson and Market streets  North Shannon street  South Race street  South Race street  Sal South Wash treet  Ezh North Market street  Ezh North Market street  Ezh South Market street  Zef South Market street  Jackson and Cherry street  Jackson and Cherry street  Jackson and Wahlut  North Market street
Name of owner or agent and city or town.	STRYKER.  Miznin, Fred.  Northwestern Milling Co.  Rumsey, J. D. & Co.  Stryker Manufacturing Co.  Werum Novelty Co.	Speice, GeorgeVAN WERT.	Cavett. R. J. Clark. Wm. A. Clark. Wm. A. Clark. Wm. A. Clertor Light and Power Co. Glegoper. Thomas. Glegoper. F. J. Glegoper. F. J. Glegoper. F. J. Glegoper. F. J. Glegoper. F. J. Glegoper. J. J. Glegoper. J. J. Kohn. Samon.
Number.	573 574 575 577	578	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

989

Words   Word	99.05 25.05			906		209		98			90		610		613		8 39 31
Woodruff, M. Wooley & Coombs Wyandt & Lee Wyandt & Lee Wyandt & Lee Wyandt & Lee West Leipsic  Huntsman, E. W. Polesdorfer, M. E. Townsend, O. S. & Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. Willshirk.  Hale Bros. Willshirk.  Arosta  Arosta  Arosta  Arosta  Arosta  Arcanum	1 stairway	l stairway Doors 1 stairway	-			1 stairway					l stairway						I stairway Doors 2 stairways Doors I stairway
Woodruff, M. Wooley & Coombs Wyandt & Lee Wyandt & Lee Wyandt & Lee Wyandt & Lee West Leipsic  Huntsman, E. W. Polesdorfer, M. E. Townsend, O. S. & Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. Willshirk.  Hale Bros. Willshirk.  Arosta  Arosta  Arosta  Arosta  Arosta  Arcanum	story frame	Frame story frame		2 story frame		2 story frame		1 story frame			3 story frame	•	1 story frame		1 and 2 story brick 1 story frame		3 story brick
Woodruff, M. Wooley & Coombs Wyandt & Lee Wyandt & Lee Wyandt & Lee Wyandt & Lee West Leipsic  Huntsman, E. W. Polesdorfer, M. E. Townsend, O. S. & Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. West Unity Manufacturing Co. Willshirk.  Hale Bros. Willshirk.  Arosta  Arosta  Arosta  Arosta  Arosta  Arcanum	Printing office and newspaper Manufacturing ball bats, etc feed	Grain elevator Manufacturing drain tile Planing mill		Flour and feed mill		Flour and feed mill		Mfg. barrel staves, etc	DISTRICT.		Flour and feed mill		wood lumber		Flour and feed mill		Flour mill Saw mill Furniture factory Manufacturing brick and tile Furniture factory
Woodruf, M.  Wooley & Coombs.  Wyandt & Lee  Wyandt & Lee  Wyandt & Lee  Townsend, O S & Co.  Townsend, O S & Co.  West Unity Manufactu  West Unity Manufactu  West Unity Manufactu  West Unity Manufactu  West Unity Manufactu  West Unity Manufactu  West Unity Manufactu  Agosta Millink Co.  Ross W. J. & Co.  Raw Lewis.  Martin & Jonesh  Arcanum Millink Co.  Speciman & Co.  Speciman Rossmell.  Gerner & Anderson  Arcanum Millink Co.  Ross, W. J. & Co.  Speciman Rossmell.  Gerner & Anderson  Arcanum Millink Co.  Red. Jumes  Arcanum Millink Co.  Red. Jumes  Mellinger & Rosser  Mentinger & Rosser  Mentinger & Rosser  Mentinger & Rosser  Mentinger & Rosser  Mentinger & Rosser  Mentinger & Rosser	112 North Washington st Jackson and Chesnut sts North Walnut street	N. Y. C. & St. L. Ry.							FIFTH 1						Main street & Big Four R. R. Main street Big Four R. R.		Main street
		Huntsman, E. W. Polesdorfer, M. E. Townsend, O. S. & Co.	WEST UNITY.		WILLSHIRE.	Hale Bros	WORSTVILLE.			/ AGOSTA.	Agosta Milling Co	ANNA.	Blue, J. M. & Co Kaw Lewis Martin & Jones.	ANSONIA.	Ross, W. J. & Co Speelman Rossmell Gerner & Anderson	ARCANUM.	Arcanum Milling Co. Fourman, Francis. Beck, James. Medilinger & Rosser. Mennenger & Reprer. Rodgers, Martin

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### FIFTH DISTRICT-Continued.

For order see corresponding this table.		288	888	88	8
Means of egress.	Doors	1 stairway	Doo.s	Doors	1 stairway
Construction.	2 story frame	S story frame	1 story frame	1 story frame	3 story frame
For what purpose used.	Manufacturing spokes and rims 2 story frame	Flour mill Planing mill Planing mill Mig. heading and staves Foundry and machine shop	Manufacturing butter tubs Flour and feed mill	Manufacturing barrel heading Planing mill Flour mill	Flour and feed mill
Location of building.	Oak street	Reservoir bank Walnut street. Reservoir bank South Mill street. Mill and Washington street.	C. J. & M. R. R	Wayne street	***************************************
Name of owner or agent and city or town.	Botkins Mauer, Charles Roth Brus, Sheets, Philip Same CELINA.	Berry & Randabaugh. Fatry & Stephenson Floic & Fauger. Schauck. Christopher. Struckman & Kink.	Creamery Manufacturing Co	Clark & Lord Kenter & Wilson Long, J. W Remarkius & Lank GREEN CANP.	Hone, J. J
Number.	<u> </u>	\$2558 2555 255 255 255 255 255 255 255 25	88	2388	8

	2 stairways 1 stairway Doors 1 stairway Doors 2 stairway 646 Doors 1 stairway 646 646	Doors 2 stair ways 2 boors 2 b	stairway.   866   Stairways   Stairways   Stairways   Stairway   Stairway   Stairways   Stairways   Stairways   Stairways	, , , , , , , , , , , , , , , , , , ,	Doors	1 stairway
	2 story frame 1 and 2 story frame 1 story frame 1 & 2 story frame 1 story frame 1 story frame 2 tory 2 tory 2 tory 3 story brick	1 story frame	2 story brick for frame 2 story brick for frame 2 story brick frame 2 story brick frame 1 story brick frame 1 story brick fram 1 story brick fram 1 story brick fram 1 story brick fram 1 story brick fram 1 story brick fram 2 story brick fram 3 story brick sto	1 story frame	1 story, frame	Sstory frame
	Manufacturing iron fences	Mfg. staves and heading	Flour and feed mill.  Mrk. farm implements, etc  Planink mill  Electric light plate.  Bandufacturink fee  Briss foundry etc  Mrg. threshers and engines  Manufacturing steam shovels.  Planink mill  Laundrying	Foundry and machine shop Manufacturing barrels Míg. hard wood lumber	Planing mill	Flour and feed mill
	Broadway and Public Sq		Greenwood and Wilson ave			
GREENVILLE.	Braden, Mrs. Clarke Fence Co D. & N. R. R. Co Hartzell, Geo. W Johnson C. Kuntz & Wright, Lucus, C. O. Nauss, L. A. Rosser, Winn.	KENTON.  Campbell. Wm  Camppo Iron Co Kenton Hardware Co Letson, A  Cobio Machine Tool Co  Toledo & Ohlo Wathlan R R Co  MARLON.	The particular of the particul	Dues & Herkinhoff Co		Miller, Jones & Co Miller, Jones & Co Watkins Bros
	<b>2222222</b> 22222222222222222222222222222	20.00 See 20.00	THE REAL PROPERTY.			9. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### FIFTH DISTRICT-Concluded,

For order see corresponding number fol- sponding this table.		86 88 578 88 88 58	268888888888888888888888888888888888888
Means of egress.	Doors	Doors	stairway Satairways stairways Satairways Btairways stairways
Construction.	1 story frame	story frame & brick	1 & 2 story brick
For what purpose used.	Mig. hard wood lumber	Machine and boller shop  Saw mill  Laudring  Flour mil  Flour mil  Foundry and machine shop  Koundry and machine shop  Mik, woolen blaukets  Manufacturing straw board	Manufacturing road scrapers  Manfacturing spokes and rims.  Broom factory  Mfg. borns and wash machines  Mrg. norse collars, etc.  Manufacturing carriage bodies.  Manufacturing school furniture  Manufacturing school furniture  Manufacturing school furniture  Manufacturing school wase
Location of building.	C. J. & M. R. R. Market street. Pearl street	Columbia and Chestnut sta.  High street & Water Race. South Pine street. South Street. High street & Water Race. Spruce street	Wilkinson avenue
Name of owner or agent and city or town	ROCKFORD.  King, W. H.  Pennell, J. H.  Rockford Milling Co	Auclaize Machine Co. Barrington, Joseph Gordon, R. P. Same Hoffman, Mr. Elizabeth St. Mary's Machine Co. St. Mary's Spoke Works St. Mary's Spoke Works Western Straw Board Co. Story Straw Board Co.	A merican Steel Scraper Co A haderson J. N. Buckeye Churn Co. Donalison & Bryant Goeney, Geo. F. Given, R. & So. Sidney Uarriage Body Co. Sidney Uarriage Body Co. Sidney Carriage and Shake Co. Sidney School Puritiane Co. Sinsser-McLan Scraper Co. Sunser-McLan Scraper Co. Sunser-McLan Scraper Co. Sunser-McLan Scraper Co. Sunser-McLan Scraper Co.
Number	673 674 875	F 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	\$

<b>26</b> 05.05	<b>5</b> 2	208 209 017	2	715	81 55 55 55 55 55 55 55 55 55 55 55 55 55	
1 balc'ny, lad., st'rw. 1 stairway. 2 stairways.	Doors I stair way	Doors	Doors 2 stalrways 2 stalrways 1 stalrway.	2 stairways	4 stairways  1 stairway  1 stairway  2 btairways  4 stairways  2 stairways	Doors
1 & 8 st'ry br'k, fram. 1 balc'ny, lad., st'rw   8 st.   1 stairway	1 story frame	story frame	1 story brick 1 & 2 story brick 2 story frame 2 story brick	2 story brick & frame 1 story brick	2 & 3 st'ry br'k, frame 4 story brick	1 story frame
Manufacturing whips	Mfg. hard wood lumber Saw and planning mill Flour and feed mill	Handle factory.  Saw mill.  Manufacturing trunk slats.  Furniture factory.  Manufacturing wooden.ware.  Grinding and feed mill.	Electric light plant	Elevator and shelling corn Saw mill. Flour and feed mill	Mfg. churns, wash g mach., etc. Cisur factory Planing mill. Flour and feed mill. Flour mill Carriage factory Manufacturing churns Mannfacturing churns Mannfact m building materials Machine shop Machine shop	Saw mill and spoke factory   1 story frame Doors
Hyland avenue Noar Hyland avenue Fair avenue Shelby strect		D. & U. R. R. R. Pan Handle R. R. State Line street.  Division street.			Park street  Auglaize street  Park street  Auglzest and S. H. & D. Ry. Park street  Lima and Sulzer streets  South Park street  Harrison street  Lima and Walkup streets.	
Underwood Whip Co	McArthur & Grafton Petty, J A Taylor Bros UNION CITY.	Anderson & Clark. Carter, Samuel L. Same Koontz & Sons Lambert & A. Parent & Lambert SANDITSKY.	er Co	Hole II & Stock. Landman & WAPAKONETA.		Vannoy, J
688 609 700 701	207 207 107	10 10 10 10	27. C.			

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### SIXTH DISTRICT.

For order see corresponding number fol- lowing this table.	087 187	\$2			748
Means of egress.	stairway	Doors	2 stairways 1 stairway Doors	Doors	Doors.   stafrway
Construction.	1 story frame	l story frame	8 story brick	1 story brick	1 story frame
For what purpose used.	Manufacturing builders suppli's 1 story frame	Manufacturing butter	Cigar factory Manufacturing mixed paints Man f ct ng saw-mil machinery Cigar factory	Electric light plant	Manufacturing bollers & tanks 1 story frame
Location of building.	Main street	Warren street.  Muskingum and Spring st st.	173 South Market street, Bridge street 408 South Market street Market and Jackson streets	West Carroliton	rks orks Muchine Co.
Name of owner or agent and city or town.	AUGUSTA. Crook & 1ddings Metzel, W. G.	Cadiz Creamory Co	Bechle, J. H. Gobeen Manufacturing Co. Knikht Manufacturing Co. Pitsburg Cigar and Stoyle Co. Caracul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul American Characul Characul American Characul	Carrollton Electric Light Co	Columbiana Boller Wo Columbiana Handle Wo Columbiana Pump and
Number.	33.	<b>筹封</b> 务等535	85.4.5	27.75 24.55	747



### INSPECTOR OF WORKSHOPS AND

1 stairway Doors 2 stairway	2 stairways 7764 2 1 stairway 7766 10 10 11 10 11 10 10 10 10 10 10 10 10 1	3 story frame
2 story frame	story fron  story brick  story brick  story brick  story brick  frame  story brick  frame  story brick  frame  story frame  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick	story frame
Machine shop and foundry	Walnut and Forrest streets Mfg. potters' machinery	Flour and feed mill 3 story frame 1 stairway  Manufacturing whiteware 3 & brick 2 stairways  Planing mill 1 story frame Doors.
ting Co.	Walnut and Forrest streets Walnut and Cook streets. Walnut and Robinson street Broadway and Forrest Sts. East End. Walnut street. East End. Fast End. Rosenth and Walnut streets Rosenth and Walnut streets Rosenth and Walnut streets Rosenth and College streets Rosenth and College streets	v Co.
Enterprise Manufacturing Co	Boyce A. J.   Walnut and Forrest streets	(unning; John & Co.
749 750 751 752	第一個	£:

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

#### SIXTH DISTRICT-Continued.

						e corre- mber fol- sable.
Name of owner or agent and city or town.  Location of building.		f building.	For what purpose used.	Construction.	Means of egress.	For order se goodlag un sidt galwol
LISBON.						
East Wa		shington street	Flour and feed mill Manufacturing sash and doors Manufacturing the plate Manufacturing briek, etc Flour and feed mill Power house Manufacturing sewer pipe Manufacturing sewer pipe Manufacturing sewer pipe Manufacturing sewer pipe	8 story frame 8 story brick 8 story brick 8 story frame 1 story frame 4 story stone & block 1 story brick 2 2 2 4 8 story frame 8	l stairway  Doors  I stairway  Sors  Stairway  Satairway  Satairway	86. 86.
Hrick Paving Co	Reed avenue	avenue.	Manufacturing fire brick, etc Manufacturing building supplies Manufactur'g paving brick, etc. Flour and feed mill	2 story frame	Doors	ĝ.
rry (laundry) 412 e Co. Noi irit Co.		n street milersb g miles north of Milersb g th Millersburg	Manufacturing builders' supplies 2 story frame  Laundrying 4 story brick  Manufacturing brick and tile. 2 s'y hollow bid. biks Flectric light plant 1 story brick  Pumpling station.  Manufactur's builders' supplies. 2 story frame	2 story frame 4 story brick 2 story brick 8 s'y hollow bld. blks 1 story brick 2 story frame	stairway 2-stairways. 4-stairways. Istairway Doors. Istairway	888
NEW WATRRORD.						
Bretz, A. E			Mfg. baskets and crates	2 story frame	1 stairway	•



	INSPECTOR OF WORK S	HOPS AND FACT	ORIES.	997
811	<u> </u>	8 1 8 8		
1 stairway	stairways  stairway  stairway  stairways  stairways  stairways  stairways  stairways  stairways	1 stairway 1 ', 2 stairways Doors 1 stairways 1 stairway	1 staírway	2 stairways. Doors 1 stairway 2 stairway Doors
2 story, frame	story brick & frame story brick & frame story brick & frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame	2 story brick	3 story frame	3 story frame  1 story brick  4 story frame  3 story frame  2 story frame
Manufacturing butter	Manufact'k stutionary engines. Mig. metal and woodw k spec. Chewing kum factory. Chewing kum factory. Mig. stoves and castings. Mig. stoves and castings. Manufacturing wood specialties. Manufacturing wood specialties. Manufacturing functory. Manufacturing functory. Manufacturing wire nails. Mig. stroulural implements. Planing mill.	Manufacturing chimney tops Flour and feed mill Manufacturing fire brick Manufacturing stoneware Manufacturing building supplies	Flour and feed mill	Manufacturing fire brick
	Broadway Depot street Dry and Penn streets Depot and Race streets Depot astreet Vine street Broadway Broadway Depot street P. W. & C. R. R. tracks. Depot street P. F. W. & C. R. C. B. C. C. C. C. C. C. C. C. C. C. C. C. C.	Main street.		ad Co
Pleasant Valley Creamery	Buckeye Engine Co. Clark W. J. & Co. Clark W. J. & Co. Grove Co. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Poliz. Kays & Letter Store Co. Fictor Store Co. Kays & Letter Store Co. Fictor Store Co. Kays & Letter Store Co. Fictor Store Co. Fictor Store Co. Fictor Store Co. Fictor Store Co. Fictor Store Co. Fictor Store Co. Fictor Store Co. Fictor Store Co.		Mc('at'ne') Melanchton Pearch, Melantroroville. Washingtonville. Heckert, John	Buckeye Brick Co
88 88 8110 8110 8110 8110 8110 8110 8110	######################################	E. S.	013 013 083	in in the second second

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

#### SIXTH DISTRICT—Concluded.

For order see corre- sponding number fol- lowing this table.		<b>28 28</b>         28     28	
Means of egress.	2 stairways.  1 stairway  Doors.  1 stairway	. 8 8-1 8-1-1-1	1 stairway
Construction.	2 sty frme&shtiron 2 story frame& brick 1 story brick & stone 2 story sheet fron		2 story frame & brick 1 story brick
For what purpose.	Manufacturing tile machinery  Manufacturing fire brick  Electric light plant  Mfg. sheet fron and steel  SRVENTH DISTRICT.	M PERSONAL TOTAL	
Location of building.		Main street.  East Mulberry street.  Mulberry street.  Near South Chestnut street.  Gardner street.  Arch street.  South Chestnut street.  South Chestnut street.  South Chestnut street.  Gardner street.	•
Name of owner or agent and city or town.	WELLSVILLE—Concluded. Stevenson & Co. Vulcan Clay Co. Wellsville Electric Light Co. Wellsville Plute and Sheet Iron Co.	Phoenix Building Co.  BARNESVILLE.  Aukinson, Catherine R.  Barlow, A. & Son Barnesville Creamersville Greamersville Greamersville Bronnell, McKeever Milling Co.  Bounell, McKeever Milling Co.  Barnesville Lodke No. 183, I. O. F.  Barnesville Lodke No. 183, I. O. F.  Barnesville Lodke No. 183, I. O. F.  Barnesville Lodke No. 183, I. O. F.  Barnesville Lodke No. 183, I. O. F.  Hall Research Milling Co.  Hall Go.	Rodgers T. & A. Watt Mining Car Wheel Co Williams Bros
	25.25.25.25.25.25.25.25.25.25.25.25.25.2	88 88 88 88 88 88 88 88 88 88 88 88 88	£ £ <b>2</b>

25					É		-	8	_:	<b>5</b>								<b>≅</b> 	88 	3
i stairway	A BYS	3 stairways		4 stairways	Doors.	Doors	3 stairways	2 stairway	Doors		2 stairways	4 stairways.	1 stairway	5 stairways	Doors		l stairway		l stairway	A ctairwage
2 story frame		3 story frame		3 story brick & frame 4 stairways	1 story frame	1 story brick	2 story brick & iron	2 story frame	1	l story brick	2 story frame	3 story frame & brick		3 story brick	1 of Opt from	1 3:01 3 11 8 110 11	3 story brick.		2 story frame	2
Cigar factory	rion sea reca militaria	Flour and feed mill 3 story frame 3 stairways		Manufacturing bottles	Mrg. stoves and eastings	Gas and electric light plant, 1 story brick	Mfg. pig iron and steel	Mig. Stoves and castings	Cigar factory	Water works station	Mfg Building material	Stamping and enumeling	Printing office.	Manufacturing glassware	Cour factory	Enameling from ware	Flour mill	Carriage factory	Cigar factory	
				_ :	I Near Guernsey street			Twenty-third street		Thirty-seventh st.		Thirty-fourth street.	_		Twentieth creed		_	-		-
Goodhart, Jerome.	_	Nuton, W. H. & I. B	BELLAIRE.	Ætna Manufacturing Co	Anderson, Simpson & Anderson Banard Brick Co.	Bellaire Gas and Electric Light Co.	Bellaire Steel Co	Boneysteele, Jacoh	Burtoft, Joseph	City Water Works	Filton Arms M	Noreltv Stamping Co.	B. word O. L.	100 lor Bros	Rodel C. A.	Smilling Soap Co	Sant Engine	Stewart & Water Stewart & Johnson	t	# f con-
870	_	873		873	875	876	r- X	250	082	688	8883	V 100	100	10/10	100	TOUS CAN	5	150	-	

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

SEVENTH DISTRICT-Continued.

For orders see corresponding initiality in the sponding this table.	908 808	116		912	8
Means of egress.	i stairway Stairways. I stairway 2 stairways.	2 stairways	3 stairways	l stairway 3 stairways	Doors 3.talrways.  3.talrways.  1.stalrways.  2.stalrways.  Stalrways.  7.stalrways.  7.stalrways.  2.stalrways.
Construction.	1 story frame	2 story, frame	2 story frame	2 story frame	1 story frame
For what purpose used.	Canning factory	Manufacturing sash, doors, etc. Flour and feed mill	Flour and feed mill	Planing mill	Cigar factory  Flour and feed mill  Flour and feed mill  Story brick  Cigar factory  Phologomee and newsp.per.  Flour and feed mill  Story frame  Story frame  Story frame  Story frame  Cigar factory  Story frame  Story frame  Story frame  Story frame  Story frame  Story frame  Story frame  Story frame  Story frame  Story frame  Story frame
Location of building.	Cumberland street	Main street		Main street	Center street West street Center street Main street
Name of owner or agent, and city or town.	Caldwell Canning Co. Content Canning Co. Jenort Well, Z. & G. T. Jenort C. J. Mills, S. & Sons. Noble County National Bank	CHESTER HILL. Bailey, T. J. Wood & Kinsey.	JERUSALEM. Young & Mellott	Matz P. W. & Bro Obloger, C. L. McConnelsville.	Goehran, Mrs. H. M. Koons Milling Co. MacConnelsville & Malta Electric Light Co. MeConnelsville Sash and Door Factory. Shafer Brow. Sprakue, W. P. Stanbery E. M. Tannehill Bros. Village of McConnelsville.
Number.	2 2 2 2 2 2 4 2 2 2 2	911	913	914	855 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

				888	914		65 22		
8 stairways		b stairways  2 2 1 2 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2		7 stairways 688  Doors 884  Stairways 986  Stairways 184  Stairway 2 stairway 2 stairways 2 stairways 2 stairway 3 stairway 3 stairway 3 stairways 3 s		l stairway	4 stairways   stairway   t	8 stairways	3 stairways
2 story frame		S story brick & frame 2 story frame 3		8 story brick & stone 2 1 story frame 1 story brick & Iron 2 2 2 2 3 3 5 5 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	1 story brick 2 2 1 s.y b'k, w'd & iron 2 story frume	l story frame	4 story frame	3 story frame	3 story frame
Flourand feed mill		Mfr. plows. cultivators. etc		Brewery Manufacturing electricity Plauing mill Blacksmith shop Manufacturing glass molds Machine shop Manufacturing etc.	Manufacturing stress etc.  Manufacturing stoves.  Manufacturing pk tron.  Laundrying pk tron.	Manufacturing creamery butter 1 story frame 1 stairway	Flour and feed mill	Flour and feed mill	Fluring mill
		Main street. Main street. Bell street. Bell streets.		Jofferson street. First street. Second and Hanoversts. Second and Walnutstreets. Penn street.		Washington street	Sugar street		Water street
Holmes, Geo	MALTA.	Brown-Mauly Plow Co Corpurer Davis & Corner. Corpurer Davis & Corner. Humphrey Saski and Door Co. Palmer. Chester. Stambery, E. M	MARTIN'S FERRY.	Belmont Brewing Co. City of Martin's Ferry. Flading John Heaton, S. H. Laughin, N. Jr. Mebernott, E. H. Mann, Wilham	VIOLENTIAL TRANSCO.  VIOLENTIAL TRANSCO.  EXCEPTION TRANSCO.  EXCEPTION TRANSCO.  EXCEPTION TRANSCO.  EXCEPTION TRANSCO.  EXCEPTION TRANSCO.	Peuusville Creamery Co	Murdaugh, It Electric Co	Archer, J. SSTONERT,	Schob & Pierr Walker, A
8		<b>25</b> 25 25 25 25 25 25 25 25 25 25 25 25 25		116 200 200 200 200 200 200 200 200 200 20		1/2	<u> </u>		£.2.
3	3	Ex. Doc.	64		Take the second	<b>5</b> , 2*			

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

## SEVENTH DISTRICT-Concluded.

For order see corre- sponding number fol- lowing this table.			2		!	28		_	
Means of egress.		Doors 2 stairways	l stairway		1 stairway	l stairway 4 stairways			1 stairway
Construction.		2 story frame	2 story , rame		2 story brick	2 story frame			8 &4 ** 2 story frame & brick
For what purpose used.		Saw and planing mill	Flour and feed mill		Manufacturing paper	Planing mill Flour and feed mill	EIGHTH DISTRICT.		Laundrying
Location of building.		Marietta street				Near depot	БІСНТН		18-38 South Front street
Name of owner or agent, and city or town.	SUMMERFINID.	Brixter Bros. Buell, Mrs. Kate. Sunmerfield Creamery Co	TRIADKIPHIA. Fyller, F. J.	WEST WHEELING.	Wagener, D	Woolrfield. Helbling, Hubbard & CoRichner, George		COLUMBUS	Allen, Roxanna Baldwin, Dr. James F. Bachows, George Hack, C. W Rielle, Jacob Mumer, Cabriel Borchers, Herman Burger Bros. & Co
Иитрет.		956 957 958			8	500		_	82886888

#### INSPECTOR OF WORKSHOPS AND

824		6. 6.	
Doors 2 stairway 2 stairways 1 stairways 1 stairways 1 stairway 1 stairway 1 stairway 1 stairway	B stairways I stairways I stairways S stairways	stairway Stairways. Doors Stairways 2 stairways. 1 stairway	Diors Stairways. Stairways. Stairways. Stairways. Stairways.
1 story frame 8 story brick 8, 4 & 5 story brick 6 story frame 6 story frame	2 story frame 2 story brick 3 story brick frame 2 story brick 2 story brick	s story frame 2 to 6 story brick 2 story frame 3 story frame 6 2 story frame	sassassassassassassassassassassassassas
Manufacturing bollers and tanks Bottling beer Brewery Architectural iron works. Printing	Laundryn, etc.  Carriage lamps, etc.  Manufacturing harness leather.  Carriage factory.  Manufacturing malieable fron  Manufacturing phaetons  Bicycle factory.	Laundrying Cracker blating Nickle plating Buggy factory Gubnet works Manufacturing coffins etc. Electric light plant Railroad Shops	Manufacturing mantels  Manufacturing weer pipe  Manufacturing worlen goods.  Mr. stereotype plates.  Mr. iron feneing, etc.  Machine shop.  Machine shop  Manufacturing elevators.
Broad and Scioto streets	37-41 East Town A Cherry Sts. 504 South Front street	906 Mt. Vernon avenue	23 West Spring street North Columbus North Columbus North West Main street 310-20 West Main street Front and Goodale streets Front and Goodale streets A Vine street Whest Broad street West Broad street
6	Brown, J. Chin. Brown, John W. Buckeye	Coleman & Felber Collins, T. E. Collins, T. E. Collins, Same Collins, T. E. Collins, T. E. Colling, T. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. Colling, C. C. Colling, C. C. Colling, C. C. Colling, C. C. C. C. C. C. C. C. C. C. C. C. C.	The County of th
78888888888888888888888888888888888888	26.6 88.8 88.8 88.8 88.8 88.8 88.8 88.8	HHI	The state of the s

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### Eighth District-Continued.

For order see corresponding number fol- lowing this table.			1026		8 2 2 3 3					1089				1045	55	078	
Means of egress.		4 stairways	I stairway	2 stairways	Doors	l escape, 2 stairways	Doors	l stairway 2 stairways	210		Openings 4 stairways	l stairway	2 Stair ways		2 stairways	1 stairway	1 escape, 1 stalrway
Construction.		3 story brick	3	4 story brick	: :		l story frame	4 story brick	1 & 2 sty. & h'yden bk	3 story stone	1 story wood & Iron 3 story brick & frame	2 story brick	268	::	; <b>:</b>		8 story frame 2 4 story brick 1 escape, 1 stairway.
For what purpose used.		Shoe factory Mantle factory, etc	Cigar Incidity	Mfg. window shades, etc	Flour mill	Manufacturing drugs	Manufacturing boilers	Manufacturing lounges Manufacturing mattresses	Foundry and machine shop	Manufacturing hames	Mfg. burgy seats, etc	Bicycle factory	Bottling beer	Brewery Mill works	Manufacturing wooden boxes	Merchant tailoring	Mfg. undertakers' supplies
Location of building.		347 West Broad street Livingston ave. and Canal st	rain and vine success	3 Wall Street 130-134 East Long street	West Mound street	342-248 South Lazelle street		231-233 West Mound street	ш-	190 North Scioto street	Long and Scioto streets West Fifth avenue	Rear 201 South High street.	Front and Brewery street	South Front street	185 Market space Walnut st and Market sn		
Name of owner or agent, and city ortown.	Columbus—Continued,	Godman, H. C., & Co Halm M. Bellows	Halm & Todd	Hamilton, Dr. J. W	Hardesty Bros Harding M. estate	Hartman, S. B.	Same	Hayden, Frank	Hay		Same Hershey, W. B. C.	:	Hoster Brewing Co	Same Houver (4, C.	Same	Same Hoover (3lbert	Hotchkiss, S. S. Howard Estate
Number.	1	<u> </u>	351	55	3) S 2) S 2) S 3) S 3) S	1031	1033	<u> </u>	1036	<b>3</b>	200	33	35	풀을	35	<u>\$</u>	16.05 16.00

·Second Inspection.

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Staffways Staffways Staffway Staffways Staffways Staffways Staffways Staffways Boors Staffways	Doors way Doors Staffways Staffway Doors Staffway 1 staffway 4 staffways 1 sta
\$ story brick  \$ & \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2 & Sacory brick. 2 & Sacory brick. 2 & Sacory brick. 2 & Sacory brick. 2 & Sacory brick. 3 & Sacory brick. 4 & Sacory brick. 5 & Sacory brick. 6 & Sacory brick. 7 & Sacory brick. 8 & Sacory b
5	Watch factory porch columns 1 5 Watch factory 2 6 Wanufacturing iron pipes 2 6 Manufacturing iron pipes 2 6 Manufacturing iron pipes 2 6 Manufacturing iron pipes 2 6 Manufacturing iron pipes 2 6 Manufacturing iron pipes 2 6 Manufacturing iron pipes 3 7 Manufacturing iron pipes 3 7 Manufacturing iron pipes 3 7 Manufacturing 1 7 Manufac
	Sprink St. and Dennison ave City Park ave, & Thurman st Pearl and Lyun streets. Ryou of West Goodale street 68 North Scinto street. Spring and Park street. Spring and Park street. To West Brond street. To West Brond street.  North Twenticth street.  """ """ """ """ """ """ """ """ """
Hughes, J. R.  Santon, C. Son  Janton, C. Son  Janton, C. Son  Janton, C. Son  Janton, C. Son  Janton, C. Son  Janton, C. Son  God  Janton, C. Son  God  Janton, C. Son  God  Janton, C. Son  God  Janton, C. Son  God  Janton, C. Son  God  Janton, C. Son  God  Killourne & Jacob  Killourne & Jacob  Killourne & Jacob  Killourne & Jacob  Killourne & Jacob  Killourne & Son  God  Killourne & Godd  Killourne & God  Killourne & God  Kill	HONE STATES
SETESCES STREET OF STREET OF STREET	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### Eighth District-Continued.

For order see corre- sponding number fol- lowing this table.	1113
Means of egress.	Stallway   Stallway
Construction.	story brick  story frame & brick  story frame & brick  story frame  story frame  story brick  story brick  story frame
For what purpose used.	Machine shop Office building Plaint shop Plaint shop It pholytering shop Mr. steam pump machinery Luundrying Shoe factory Manufacturing car seals Manufacturing car seals Manufacturing blank books etc Shop factory Manufacturing blank books etc Oarriage factory Mik ladders and trucks Laundrying Manufacturing sausage Manufacturing sausage Manufacturing sausage Manufacturing sausage Manufacturing sausage
Location of building.	North Twentieth street  10.5 July Share Broad street  10.7 July Bast Broad street  10.6 July Bast Broad street  10.6 July Bast Broad street  10.6 July Bast Broad street  10.6 July Bast Broad street  10.6 July Bast Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad street  10.6 July Broad St
Name of owner or agent, and city or town	COLUMBES—Concluded. Same Same Same Same Same Same Same Same
Number.	8824955555555555555555555555555555555555

	INSP	ECTOR OF WORL	KSHOPS A	AND FACTORIES.	1007
		m 80		Stairways Openings I stairway Stairway Doors I stairway I stairway	
l stairway Doors 2 stairways 1 stairway Openings	8 stairways 2 1 stairway	3 stairways 1 stairway 1 stairways 2 stairways 2 stairways 1 stairways	1 stairway	Stairways Openings I stairway Stairway Doors Doors Stairway I stairway I stairway	1 stair way 1 1 1 1
l and 3 story brick	2 story st ne, brk., fr. 3 story stone 2 story brick	2 story frame	2 story, frame 4 story brick	3 story brick 1 story frame 2 story brick 2 story frame 2 story frame 1 story frame 1 story frame 2 story frame 2 story frame 2 story frame 2 story frame 3 story frame	2 story frame & brick 2 story brick 3 story frame 2 story brick 4 story frame 3 story brick 4 story frame
Manufacturing furnaces	Chair factory Mr. sewer pipe and drain tile Printing	Brewery Carriage Inctory Planing mill Cigar factory Since factory Flour mill Sluce factory Planing mill Laundrying	Machine shop	Printing Spoke factory Mfg. plano chairs, etc. Mfg. plano chairs, etc. Manufacuring butter tubs Laundrybig Flour mill. Planing mill. Mfg. kitchen furniume	Cigar factory.  Mf. traction engines.  Flour mill  Mf. traction engines  Flour mill  Cigar factory.
584-586 South High street 683 North High street 51-28 North Scioto street 51 Lynn street 64 Lynn street Hocking Valley R. R. depot	118 East William street9	Union and Canal streets 21-213 South Columbus \$6 21-213 South Columbus \$1 32 Wheeling street 322 South Broad street 234 Columbus street 234 Columbus street 234 Columbus street 234 Columbus street 235 Outh Broadway 235 Columbus street 247 Columbus street 250 Columbus stre	West High street	Main street  Main street South Chestnut street  East Fifth street South Main street South Main street Fourth and Wahut streets Fourth and Main street	19) East Main street 12: Church street 12: Church street 13: Tanklin and First streets 23: Front street 57-59 West Main street
Vogelgesang Hefrs Violet. J. A. Wieuman Machine Works. Wheeler Estate Wittenmeier, Fred and Jacob	Delaware Chair Co	Beeker, E. Brewing Co Bininger, E. H Darfus, John Darfus, John Darlaney, Son Dadon, E. A Getz, A. Shoe Manufacturing Co Graham & Black Lancaster Shoe Co Net Ancapic James & Co Orman, J. B. & Bros.	LONDON. Junes Bros. Minisan Helrs Minisan Helrs	MARYSVILLE.   MARYSVILLE.	
25 25 25 25 25 25 25 25 25 25 25 25 25 2	######################################	11.50 11.50		· 查验验	<u> </u>

# TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

### Eighth District -Concluded.

For order see corre- sponding number tol- lowing this table.		_	88 86   64   88
Means of egress.	1 stairway		frame   Stairways   Stairway
Construction.	3 story brick	_	1 & 2 st y b k & frame 2 story brick 3 s 3 story fron 4 story brick 4 story brick 5 story brick 6 story brick 7 story brick 8 story brick 8 story brick 8 story brick 8 story brick 8 story brick 8 story brick 8 story brick 8 story brick
For what purpose used.	Flour mill 3 story brick 1 stairway	NINTH DISTRICT.	Manufacturing straw board.  Mfg. paper boxes and buckets  Laund Tattor.  Laund Tattor.  Mfg. paper novettes  Manufact'r shirts and overalls.  Mf. corride and pasoline engines  Mf. corride and parasol factory.  Mfg. railroad and electric cars  Mfg. railroad and electric cars  Mfg. railroad and electric cars  Mfg. tripling and newspaper  Printing and newspaper  Mfg. turine water wheels, etc.  Mfg. turine water wheels, etc.  Mfg. turine water wheels, etc.  Mfg. turine water wheels, etc.  Mfg. turine water wheels, etc.  Mfg. turine water wheels, etc.  Mfg. turine water wheels, etc.  Mfg. asah, doors and blinds
Location of building.	Canal and Second streets 71-73 East Main street	NINTH	22. West Fifth street
Name of owner or agent, and city or town.	NEWARK - Concluded. Thomas, David Tucker, John	DAYTON	American Straw Board Co.  Aull Bross Bailey Sopolas Barley, E. J. Barney, E. J. Same Same Same Same Same Same Same Barney & Smith Car Co. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. E. Bauman, O. W. & L. C. Bauman, Mrs. M. E. S. Bletere & Smith Valle Co. Bletch & C. C. C. Bauley, O. L. Co. Bradley Cordage Co.
Number	1175 1176 1177		######################################

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

#### NINTH DISTRCT-Continued.

For order see corre- sponding number fol- lowing this table.	1255 1256 1256 1256 1256 1276 1277 1277 1277 1277 1277
Means of egress.	Staliway   Staliway   1283
Construction	story brick  story frame  story frame  story frame  story frame  story brick  story brick  story frame  story brick  story frame  story frame  story frame  story frame  story frame  story frame  story brick  story
For what purpose used.	Mfg shirts, overalls, etc.  Perinling office etc.  Gigar factory.  Book binding and printing  Printing and publishing  Manufacturing soan boliers.  Mrg. extracts and che wing gum.  Printing and publishing office.  Mrg. incry d'ek shipl' gerates.  Rectifying high wines.  Rectifying high wines.  Rectifying high wines.  Printing and publishing office.  Manufacturig rights boxes.  Manufacturing right boxes.  Manufacturing etgar boxes.  Manufacturing etgar boxes.  Manufacturing gas engines.  Sorting tobacco.  Engraving of all kinds.  Sorting tobacco.  Engraving of all kinds.  Planing mill.  Planing mill  Planing mil
Location of building.	Fifth and Perry streets
Name of owner or agent, and city or town.	Cem Shirt Cocentinued. Cem Shirt Cocentinued. Cerman New spaper Cocentral Co
Z <sub>nmber.</sub>	88528588888888888888888888888888888888

#### INSPECTOR OF WORKSHOPS AND F

1881	261 252 251 155 155 155 155 155 155 155 15	1306 1306 1307 1311 1311 1813
1 escape & 2 strways 2 stairways 2 stairway 2 stairway 4 stairways Doors 1 stairway	2 staliways. 2 staliways. 2 staliway 2 staliway 5 staliway 8 staliways. 1 staliway 1 staliways & bridges 1 staliways.	2 st.rways & 2 bridges 1302 2 stairways 1305 2 stairways 1305 2 stairways 1307 2 stairways 1307 2 stairway 1301 3 stairway 1311 3 stairway 1311 3 stairway 1311 3 stairway 1311 3 stairway 1311 4 stairway 1311 5 stairway 1311 5 stairway 1311 5 stairway 1311 5 stairway 1311 5 stairway 1311 5 stairway 1311 5 stairway 1311 5 stairways 1311 5 stairways 1311
5 story brick	3 story frame 2 & 3 stybr'k; 2 & 3 stybr'k; 4 to 4 sty. brick. 1 to 4 sty. brick. 3 story brick.	4000040404000
Manufacturing paints  Wir trunk handles, etc.  Printing office.  Mir, gas and gasoline engines  Saw mill.  Mir, wire and fron fencing  Mir, wive and tron fencing  Mir, woden tree labels.	Manufacturing tobacco Planing mill Planing mill Puper mill Printing office Mr. cish registers Mr. Paster file Mr. Paster file Mr. Paster Mr. Paster Mr. Paster Mr. Paster Mr. Paster Mr. Paster Mr. Paster Mr. Paster Mr. Paster Mr. Paster	Furniture factory  Nanutacuting plows.  Minutacuting plows.  Mig. parior and library tables.  Mig. parior and library tables.  Mig. parior and library tables.  Mig. parior and library tables.  Mig. vehicle wheels.  Man facturing libraced oil.  Planing mil.  Planing mil.  Planing mil.  Mig. steam pumps, etc.  Mig. steam pumps, etc.  Manuf tarding builders material.  Manuf acturing builders material.  Hoole and Job printing.  Phoole and Job printing.
Wayne avenue  426 Hoffman avenue Second and Main streets. 1136 East Third street. 1140 Hoftory and Brinham sis South Williams street. Pine and Marshall streets.	113-115 East Second street 1827 West Second street 44 Fast Second streets 1870wn and Main streets 1870wn and Main streets 1871 and Canal streets Albany street	98-32 East Phrs street
Lowe Bros. Co. Lyous, E. B. Mehntre, J. R. MeSherry Manufacturing Co. Mahrt, H. C. Co. Mahr, H. C. Lo. Mahry, H. C. Sante. Marshill, A. C. Estate.	Mar-Sallik Ge Mathias Plan Mead Paper Salme Michels, Mrs. National Lin Nixon, A. C. Ohio Rake Co	Per
88888888888888888888888888888888888888	2000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Take to the total of the total

TABLE XIII—FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR—Continued.

#### NINTH DISTRICT-Continued.

For order see corre- sponding number fol- lowing this table-	1340	1351 1353 1354 1354 1355 1355	1357 1356 1860
Means of egress.	2 stairways	Doors  1 stairway 2 stairways 1 stairways 2 stairways 2 stairways	1 stairway   1887   1886   1800rs   1886
Construction.	8 story brick 2 8 story brick 5 story brick 8 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1 story frame 2 story brick 2 str. frm. cov. from 2 story brick	3 story brick
For what purpose used.	Bruwery  Manufacturing warnish and oil.  Printing and cinding  Cigar factory  Mrg. spices chewing-gum etc.  Sorting tobacco  Laundrying.  Carriage factory  Cooper shop  Manufacturing woden boxes.  wheels, hubs. etc.	Anderson st. & Big Four Ry. Job machine shop.  Center st. & C., J. & M. Ry. Flour and feed mill River street. Second & Big Four Ry. Grading and sorting rags. Fifth street and Union Row Peper mill.	Printing and publishing  Baking beans  Mig. laundry machinery  — paper mill machinery  — casters and specialties
Location of building.	First and Beckle streets  East Monument avenue Fourth and Main streets  Ille-18 Pearl street  Or East Third street  First and Foundry streets  Eith street and Home ave.  21 Eagle street  22 Eagle street  23 Eagle street  24 Eagle street  25 Eagle street  26 Eagle street  27 Eagle street  28 Eagle street  29 Eagle street  20 Eagle street  20 Eagle street  21 Eagle street  22 Eagle street  23 Eagle street  24 Eagle street  25 Eagle street  26 Eagle street  27 Eagle street  28 Eagle street  29 Eagle street  20 Eagle street  20 Eagle street  20 Eagle street  21 Eagle street  22 Eagle street  23 Eagle street  24 Eagle street  25 Eagle street  26 Eagle street  27 Eagle street  28 Eagle street  29 Eagle street  20 Eagle street  20 Eagle street  20 Eagle street  20 Eagle street  20 Eagle street  20 Eagle street  20 Eagle street  21 Eagle street  22 Eagle street  23 Eagle street  24 Eagle street  25 Eagle street  26 Eagle street  27 Eagle street  28 Eagle street  29 Eagle street  20 Eag	Anderson st. & Big Four Ry. Center st. & C., J. & M. Ry River street. Second st. & Big Four Ry Fifth st. and Big Four Ry Sixth street and Union Row	High street. 221-229 South Seventh st. 251-229 South Seventh st. 351e North Second street. 110 North Water street.
Name of owner or agent, and city or town.	DAYTON - Concluded. Thomas, N., Hydraulic Brewery Thresher & Co. Inited Brethern Printing & Publishing Co. Wallaston, W. R. Ware C. F., Coffee Co. Wolf, J. P. Same Woodhull, Morris Zeigler, John D. Zentle, Adam. Savick, Greenwald Co. FRANKLIN.	Buehner, Charles Franklin Flour and Feed Co Franklin Paper Co Hardink Paper Co Sam Kalser John Perrine Paper Co Handlink Paper Co	Bender John Bros. Co. Bens Machine Co. Black & Clauson Co. Burns, P. & Co.
Хатрет.	1338 1338 1338 1340 1340 1340 1340 1340 1340 1340 1340	1885 1885 1885 1885 1885 1885 1885 1885	1355 1356 1356 1356 1356



1398 1308 1308 1372	1874 1881 1882	1386 1386 1386 1386 1386 1386 1400 1400	1405 1405 1407 1410 1411
l stoirway Lirn lad'r, I stairw'y Doors stairway stairway stairway boors stairway stairway stairway stairway stairway stairway	Doors  B stairways  B stairways  S stairways  S stairways	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	l stairway Doors I stairway I sty, 4 iron ladders Stairways
es 4 → 01 00 01 → 01 00 01 ±1	2 story frame 2 story brick 1 story frame 5 story and story brick 1 story brick 2 story brick 2 story brick 3 story brick 2 story brick 3 story brick	3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	2 & 3 story brick
Manufact'nk wakons and plows four and feed mill	thub and spoke factory.  Printing and publishing.  Manufacturing from bridges, etc  Mr. gray iron cashings.  Mr. stray iron cashings.  Mr. stoves and ranges.  Mr. stutographic registers.  Mr. stutographic registers.  Mr. stutographic registers.  Mr. stutographic registers.  Mr. stutographic registers.	Laundrying  Laundrying  Machine shop  Printing and publishing  Printing and publishing  Brantacturing tastes.  Manufacturing as each etc.  Manufacturing as each etc.  Manufacturing and vinesar.  Mix cider and vinesar.  Mix cider and vinesar.  Mix cider and vinesar.  Mix cider and vinesar.  Mix cider in vinesar.  Mix inckets, stirts, etc.  Faper mill  Manufacturing maltic.  Mix inckets, skirts, etc.  Faper mill  Mix overalls, pants, etc.  Hub and spoke factory.	Hox factory and planing mill Laundrying Baper bags Laundrying Baper mill machinery Mig paper mill machinery Corn planters, etc
Court & & C. H. & D. Ry Frout St. & C., H. & D. Ry Frout St. & C., H. & D. Ry Court and Riley streets Walnut St. & C. H. & D. Ry Il3-17 North Water street Soventh and Hanover sts By East avenue Il South Water street Il South Water street	Wahmts i. W.C. H. & D. Ry. 2-41 East High street. Symmer and Millikin aven s Riction street Linden aver & M. Pleas, Pk. Hamilton & East avenues. Symmer avenue. Familien & Mark Street. Hamilton & Millikin aver. 2-731 North Water street.	2:10 Fast High street 2:10 2:10 2:10 2:10 2:10 3:10	Fifth and Park streets
Burns, P. & Co. Carr & Brown Co. Charpion Coated Paper Co. Chacimad Brewing Co. Same Same Clawson L. P. Davidson, Archibald Delizer, L. & Son. Dingeleder, W. W.	Ponges, John & Co.  Hamilton Autographic Register Co. Hamilton Construction and Tool Co. Hamilton Foundry and Machine Co. Hamilton Foundry and Machine Co. Hamilton Funden wild Elec Transit Co. Kahn, F. & L. & Berse, Krauth & Benningbofen Macwale & Urban Co. Mencke, Pred.	Same Same Same Same Same Same Same Same	Annual R. Co.
1868 1868 1866 1866 1867 1868 1868 1871 1871	2		

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### NINTH DISTRICT-Concluded.

For order see corresponding number following this table.	1416 1428 1428 1428 1430 1430 1430 1430	1432	9841
Means of egress.	Doors  Stairway, 3 indders.  Stairway, 3 indders.  Stairways	l stairway	i stairway Doors I stairway 4 stairways 1430
Construction.	1 story brick 2 story frame 2 story frame 3 8 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	2 story brick	8 story brick 2 story frame 2 story frame
For what purpose used.	Elec. light plant & power house 2 2 story brick Machine shop 2 2 story frame 2 2 story frame 2 2 story frame 2 2 story frame 2 2 story frame 2 2 story brick book and blotting paper 3 2 story brick Story brick British Briti	Printing and publishing 2 story brick 1 stairway	Flour and feed mill. Saw and planing mill. Saw and planing mill. Manufacturing auger blus. Electric fight plant. 2 story frame.
Location of building.	Canal and Clinton streets Alley bt. First & Second sts Big Four Ky. First and Water street South Broad street South Broad street South Main street Second. Third & Grimes sts South Main street Fhird and Main street Third and Main street Water street Water street Water street Sacond Broad way Water Street Sacond Broad way Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street Sacond Street	Ash street	Sugartree and Grant streets East Main street Mulhery and Sugartree six. Wall St. & B. & O. S. W. Ry. Mulbery st. & C. M. & V. Ry.
Name of owner or agent and city or town.	Middletown Fleetrie Light & Power Co- Middletown Machine Co- Middletown Navelly Co- Middletown Pump (a. Orlesby, N. B. Paper Co- Orlesby, N. B. Paper Co- Orlesby, N. B. Paper Co- Orlesby, N. B. Paper Co- Sann-Robins Paper Co- Sork P. J. Co- Sork P. J. Co- Sork P. J. Co- Sork P. J. Co- Wenter Paper & Manufacturing Co- Tytus, Gardner Paper & Manufacturing Co- Tytus, Gardner Paper & Manufacturing Co- Tytus, Gardner Paper & Wandlay Wilson & McCallay Tobacco Co- Wilson & McCallay Tobacco Co- Wilson & McCallay Tobacco Co- Wren Paper Co- Wren Paper Co- Prove	Young & Warten	Clinton Milling Co Fisher James, & Son Gallup Horace Irwin, Auger Hit Co Village of Wilmington
Хитрет.	======================================	<b>3</b>	8.44.44.45 8.44.44.44.44.44.44.44.44.44.44.44.44.44

Manufacturing straw paper 1 story brick.  Saw mill rough and cordate 2 story frame rope machinery 2 story frame 2 story frame story frame and rote machinery 3 story brick.  Manufacturing rope machinery 2 story brick.  Mig. and mounting maps 3 story brick (far factory frame shop fruither shop and mounting maps 2 story brick frame fruither factory 3 story brick 4 story frame fruither factory 5 story brick 5 story brick 6 factory 6 story frame 7 story brick 7 story frame 8 story brick 8 story brick 8 story brick 8 story brick 9 story brick 9 story brick 1 story frame 1 sto	Saw mill   Story brick   Story frame   Sto	West st. & P. C. C. & St. L. Ry   Washington and Detroit sts   Saw mill   Story brick   Saw mill   Story frame	 Stairways 1 stairway 1 stairway 1 stairway 1 stairway 1446		stairway  Stairway  Boors  Belliway  Istairway  Sescapes & Istairw y  Stairway
Manufacturing straw paper Saw mill Mig. twine and cordage Tope Manufacturing rope machinery Planing mill Mif electrical apparatus Shoe factory DISTRICT.  DISTRICT  Mig. and mounting maps Furniture factory Machine shop Furniture factory Machine shop Furniture factory Mig. bibly carriages, etc. Mig. bibly carriages, etc. Mig. bibly carriages, etc.  Window shades Mig. bibly carriages, etc.  Window shades  Bottling layor Shoe factory Mig. bibly carriages, etc.  Window shades  Bottling layor Shoe factory Shoe factory Window shades  Bottling layor Shoe factory Window shades Shoe factory Wandow shades Shoe factory Wandow shades	Manufacturing straw paper Saw mill Mig. twine and cordage Manufacturing rope machinery Planing mill Mir electrical apparatus Shoe factory DISTRICT.  Mig. and mounting maps Cigar factory Machine shop Furniture factory Faundrythg Faundrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Frandrythg Shoe factory Mig. bibly carriages, etc Window schode Window schode Window schode Window scholer Shoe factory Willing latury Shoe factory Willing latury Shoe factory Willing latury Shoe factory Willing latury Shoe factory Willing latury Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory Wanufactory carriage]	Westst. & P. C. C. & St. L. Ry. Washington and Detroit siss Saw mill West Second street. Nain St. & C. P. E. E. Ry. Collier street. South Detroit streets. Third and Detroit streets. Third and Detroit streets. Detroit and Leaman street. Canal and Race street. Canal and Race street. Canal and Race street. Canal and Race street. Canal and Race street. Canal and Race street. Canal and Race street. Canal and Race street. Canal and Canal streets. Canal and Canal street	1 story brick. 2 story frame. 2 story frame	-	story brick  story frame  story frame  story brick  story
		West St. & P. C. C. & St. L. Ry. Washington and Detroit sus West Serond street.  Main st. & C. P. & S. L. Ry. Collies street.  South Detroit streets.  Third and Detroit streets.  Third and Detroit streets.  The Canna and Race street.  Canna and Race street.  Swest Second street.  Swest Skin street.	Manufacturing straw paper Saw mill Mfg. twine and cordage Manufacturing rope machinery Planing mill Mfg. electrical apparatus Shoe factory	DISTRICT.	Mfg. and mounting maps.  Cigar factory.  Machine shop  Laundrying  Preparing mortar  Piano factory  Prainter factory  Runiture factory  Nfg. baby carriages, etc.  Window shades:  Window shades:  Window shades:  Shoe factory  Manufacturing carriage lamps.

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TABLE MIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### TENTH DISTRICT-Continued.

For order see corresponding number fol- lowing this table.	1487
Меапs of egress.	1 escape & 1 stairw'y 2 stairways 3 ecc ps & 3 stairw'ys 1 stairways 2 stairways 2 stairways 2 stairwys 2 stairwys 1 escape & 2 1 stairway 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairwys 1 ecc pe & 2 stairway 1 ecc pe & 2 stairway 1 ecc pe & 2 stairway 2 stairways 3 stairways 4 tairways 8 stairways
Construction.	story brick story brick story brick story brick story frame stry fram, ir ishte. story brick story brick story brick story brick story frame story brick story frame story brick story frame story frame story frame story frame story frame story frame
For what purpose used.	Printing, laundrying, etc. Printing Printing Printing Spice mil Coarringe fuetory Waren factory Waren factory Machine Shep Cigar factory Manufactory Printing and binding Printing and binding Printing and binding Manufacturing men s shirts. Oo printing Manufacturing men s shirts. About factory Manufacturing picture frames. Cigang factory Manufacturing picture frames. Cigang factory Manufacturing hat frames. Cannotying Manufacturing hat frames. Cannotying Manufacturing hat frames. Cannotying Manufacturing hat frames. Cannotying Manufacturing hat frames. Cannotying Manufacturing hat frames. Cannotying Manufacturing hat frames. Manufacturing hat frames. Cannothing burkles.
Location of building.	126-128 Longworth street
Name of firm and city, town or village.	('thern & Continued, ('chen & Co 'chenan & Reymolds ('chenan & Reymolds ('chenan & Reymolds ('chenan & Reymolds ('chenan & Len
Number	25.25.25.25.25.25.25.25.25.25.25.25.25.2



: :	1101		***************************************						1527				1531		1533			-							:	1545			1540							1	1908	1560		1562		-				
Scape & I stair w y	2 esc pes & 2 st rw ys	2 stairways	l escape & 2 strw ys	1 & 3 st'rw'vs	Doors	1 escape & 1 stairw'y	1 & 1	18 1	13 1	Istairway		,, ,	2 st'rw'ys & bridges	:	l stairway	l escape & l stairw y	2 esc pes & Istairw y	rescape & z strw ys	1 " & 1 stairw'v	4.1	2 esc nes & 3 st'rw'vs	1 stairway	1 2	4 stairways		63	I Strwy & Dalconies	1 scanne & 1 stairm'y	9 stairways	1 stairway	2 stairways	1 stairway	I escape & I stairwy	l escape & 1 stairw'y	4 stairways	5	l escape & 1 stairw y	Stalfway	Stairway	1 escape & 1 stairw'y	2 stairways	62	Stalfway	Stairways	Z etairways	
		***************************************		:	1 story iron	K				3		41		_					-		. e. e.	" & frame	_		_	3%	z & 3 story stone	Story orick		1 & frame	&stone	2 " & frame		Story Irame	1. 3 & 4 story brick	1 story frame	4 story brick	4 story brick			:				d & estone	_
	Manufacturing paper boxes	Lithographic printing	Kag and paper stock house	Manufacturing brushes & maps.	Barrel factory		Tailoring	Book-binding	Manufacturing grates & mantels	Tailoring	Manufacturing stained glass	Brush factory, etc	Manufacturing sweat collars	Paper and rag warehouse	Mfg. plumbers' supplies	Frinting and hthographing	Cigar factory	Houlest factory	Printing and binding	Manufacturing oil tanks etc	Manufacturing society goods	Tailoring	Book-binding and printing	-	-	-	***************************************	Printing and publishing	Carriage factory	M'e. plastering hair	Tailoring	Soap factory	Manufacturing society goods	Manufacturing borse collars	Machine and pattern shop	Manufacturing packing boxes	Silvering and beveling glass	Manufacturing gloth cans	Manufacturing brass goods	Clgar factory	Manufacturing iron roofing	Planing mill	Start building, etc	Mrg. pleture frames, etc	Chiar factory	Topon and
96 West Canal street	120-124 East Pearl street	12-14 West Court street	37-39 Main street	1023-1027 Main street	Spring Grove av. & Str'ht st.	Third and Plumstreets.	1711 Elm street.	219-221 Walnut street	516 Hunt street	171 West Liberty street.	Fourth and Sveamore sts	158 West Court street	Near 328-332 Public Landing	328-332 Public Landing	532-536 Hunt street	Z East Eighth street	121-125	Third and Elm street	Walnut street	Sixth and Main streets	626-632 Main street	2128 Vine street	Bank alley	20-22 East Pearl street	124-128 Broadway	830 Everett street	2301-2 to Gilbert avenue	Second and Indian streets	1975-1985 Budd street	1201 West Liberty street.	Seventh and Elm streets	2268 Spring Grove avenue	2.0-232 East Fourth street	315-317 Hammond street	John and Water streets	Richmond st. & McLean av	430 Oliver street	30 East Pearl street	212 Main street	215 Walnut street	232-234 Public Landing	1513-1521 Plum street	2330-234 COOK Street	Ann street and Central av	Walnut street	
Frank, S. H.	Freeman & Peck	French, William	Freyberg, Julius	Fries. Agustus.	Fritsch F M		Funke F.	_	Girlf A. S.				Comersul Bruce	Same	Greiwe Extate	Groesbeck, W. S.	Same		Same	FS. Ma	Hours	Mill Deal	HOTE FORE F. & A. M.	C. Louis	Ons 1 B		down Bridgery	reld peter	Human asper	donel W. F	10V Ho Por Co-	Hucker, out belle Co	This is the transfer of the tr	Up O ME V	extinge, printer	Single House on Page 1	Villa madicales	How Boy Cadimina	Land not Mr. George B. Enald, ast.	Delect J. Petato	Vennue Vorta	Long and Sugar	The state of the s	Pord Fred & Soustate		Lucius A. H.
1516 F	1518		1591		1523	1554	15.55	1526	F	-	1555		1531	1907		-	1536	1537	1338	Jenn Ha	In Mal	July show	Will Halling	" roll	Suome The	3	1	1	H System	H	H OFEL	H 161	H SE	III Wei	1850 I.	See See	N Contract	もに	50000	100	af af		Co.			27.5

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### TENTH DISTRICT-Continued.

For order see corresponding number fol- lowing this table.	1670 1673 1774 1775 1779 1779 1779 1779 1779 1779 1779
Means of egress.	### ### ### ### ### ### ### ### ### ##
Construction.	ED01-10-10-10-10-10-10-10-10-10-10-10-10-1
For what purpose used.	Printing office, etc  Cigar factory  Metal and plating works  Trunk box factory  Box factory  Box factory  Box factory  Box factory  Manufacturing cloth caps, etc.  Printing and mfg, flags,  Mig, caps and head, wear  Soap factory  Manufacturing cloth caps, etc.  Box factory  Manufacturing cloth caps, etc.  Manufacturing plumbers' supp'  Machine shop  Jectrical  Machine and puttern shop  Jectrical  Machine and puttern shop  Jectrical  Machine and puttern shop  Jectrical  Machine and puttern shop  Jectrical  Machine and puttern shop  Jectrical  Machine and puttern shop  Jectric fractory  Mig electric batteries  Printing and publishing  Mig dynamos and motors  Talloring  Mig dynamos and motors  Talloring  Mig, dynamos and motors
Location of building.	424 Elm street.  125-128 Pearl street.  Mass. av. & straight sts.  106-110 Commerce street.  717 Sycamore street.  717 Sycamore street.  717 Sycamore street.  718 Bear 713-715 Sycamore st.  620 Elm street.  730 Plum street.  740 Plum street.  740 Plum street.  750 Coleraine avenue.  752 Coleraine avenue.  752 Coleraine avenue.  752 Coleraine avenue.  753 Gonessee street.  754 Bann street.  755 Ober 100 Street.  756 Dast Tond way.  757 Coleraine avenue.  758 Bann street.  758 Bann street.  759 Dast Tond street.  750 Dast Tond street.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.  750 Dast Norden.
Name of owner or ugent and city or town.	CINCINNATI—Continued.  Manfort & Co. Marks. Mrs. Mary (Jas. G. Cooper, agent). Merker, F. A. Menchel, & Co. Meyer. William. Same Same Same Same Same Same Same Same
.тәбшиИ	15.09 15.70 15.71 15.71 15.71 15.73



#### INSPECTOR OF WORKSHOPS AND

å stairwy by stairwy & stairwy & stys	st.s	st'y	& 2 brid*8 1619	2 stairways 1621 1 stairway 1622 1 escape & 1 st y 1622 2 st ys. 2 bal's & lad'r	. & lad'r	& esc pe
		3-0			e i stairway  I stair'y, i bal. & lad'r  I stairway  I stairway	stairways
2 story, brick					& Stone	& stone
844444- 0 0		91 FO FO 47 44 4	4.4000.		4 4 で 4 <b>8</b> 4	හළ ස නූ 4
Mfg. harness machinery Job printing. Cigar factory Manufacturing has frames. Mfg. shirts and overails. Gigar factory	100		Papel Glass Cigar Mfg.		Manuacturing one wing gum. Mg. tables and hat racks. Paper box factory Mg. leather chairs and couches Manufacturing art wood-work. Printing.	
West Sixth street	108-110 West Ninth street 121-129 Carr	1920 Variet Street W. 1980 Dunlap street		-4004		
		Saurston & Brown		Sernbauch, W. Estate  Sernbauch, W. W. Estate  Seasongood, Lewis  Geografi National Bank  M. J. M. Estate	Shepp Catale State State Shepp Catale M. Estate Shepp Shepp M. Estate Shepp Shows Shepp Sh	Shuth Part Joseph Walter Walter
1600 1603 1603 1603 1603 1604 1604	1609	1611 1612 1613 1614 1614	1618 1618 1618 1619 1619	Can Man	Tomas Canal	STATE OF THE PARTY

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

### TENTH DISTRICT - Continued.

	For order see corresponding number fol- lowing this table.	1999	1674 1675	Ē
	Means of egress.	Strw., I balc.& ladd'r    stairway & I bridge   1666   stairway & I bridge   1666   stairways & I stairw   1 balc.& stairw   1 balc.& stairw   1 stairway   1 stairway   1 stairway   1 stairway   1 stairways   1 stairways   1 stairways & I stairway   1 stairways & I stairways   1 stairways & I stairways   1 stairways & I stairways & I stairways & I stairways & I stairways & I stairways & I balc.& ladd'r   1 balc.& ladd'r   1 balc.& ladd'r     1 balc.& ladd'r	3 stairways	i stairway
	Construction.	3 and 4 story brick 5 1 and 3 5 2 6 & St'y brik & frame 4 story brick 5 6	2&3st'ry brk.& frame 1 and 2 story frame	1 story frame
	For what purpose used.	Mfg. saddlery and harness white lead and paints white lead and paints white lead and paints white lead and paints when he canned the current iron works.  Mig. elevators, etc laundry machinery refrice ators Machine shop Hook binding.  Mig. mattresses & bedding.  Mig. mattresses & bedding.  Job printing.  Cigar factory what shore factors har and store factors har and store factors har and store factors	Mfg. corn drills Pottery	Planing mill
	Locution of building.	Sixth and Main street.  Sixth and Main streets.  126-1273 Bludd streets.  Third and Vine streets.  1840-828 West Sixth street.  1847 Central avenue.  Sixth and Baymiler streets.  Sixth and Baymiler streets.  Sixth and Baymiler streets.  Sixth and Baymiler streets.  Sixth and Baymiler street.  WH Walnut street.  WH Walnut street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  1728-1281 Jackson street.  222. Main street.  222. Main street.  229-281 Jackson Street.	48-50 Market street	Montgomery Pike
	Name of owner or akent and city or town.	CINCINNATI—Concluded. Verkamp, H. Vioyler, Fred. Walsher, White Lead. Co. Walsh. H. C. Walton, J. P. Ward, W. E. Warner Elevanor Co. Warner Elevanor Co. Warner State Warner State Webrman Estate White State Taundry Co. Williams Peter T.	Campbell, JamesRupp, William	IDLEWILD.  Montgomery Pike
!	Zamper	100 100 100 100 100 100 100 100 100 100	1674 1675	1676



#### ELEVENTH DISTRICT.

						1667		1667	1706
	2 stairways	Doors		Openings		1 stairway Duors 1 stairways 1 stairways Duors 1 stairways 1 stairways 1 stairways	1 stairway	3 stairways 1 stairway 1 stairways 3 stairways 1 stairways 1 stairways	l stalrway  Doors  stalrway  1 the stalrway
	8 story frame	1 story frame		1 story frame		8 story brick 2	8 story frame	2 story frame 3 story brick 2 story frame 2 story frame 2 story frame 2 story frame	2 story frame
	Grist mill	Saw and stave mill etc.		Mfg. fire brick and tile		Grist mill Laundrying Manufacturing sweat pads Planing mill Manufacturing novelties, etc. Mfg. wooden-ware specialties. Mfg. wooden-ware specialties. Mfg. wooden-ware specialties. Mfg. wooden-ware specialties. Grist mill	Flour and grist mill	Mfg. machinery, bells, etc. Laundrying Carriage and wagon factory Planing mil. Flour and grist mill Chair factory Mfg. rims, runners, etc. Planing mill and carpenter shop Flour and grist mill.	Manufacturing meal and feed Planing mill Power house Door Factory Loading cross ties
	Symms creek			N. & W. R. R Ohlo river		Second street	Symms creek	C. P & V. R. R. Beach and High streets Court and Short streets West street Beach and West streets. South street Beach street Beach street Beach street Reach street Near depot.	123 Vernon street Third street Obio river Fourth street Obio river Seventh street
ARABIA.	Slone, J. F	Wyle E. J	COAL GROVE.	Peters, John, Jr. Yellow Poplar Lumber Co.	GREENFIELD.	1684 Boden, Patterson & Co. 1685 Mectain, E. L. 1687 Martin, S. L. 1687 Martin, S. L. 1687 Martin, S. L. 1687 Martin, S. L. 1688 Martin, S. L. 168	Bradshaw & Betts HILLSBORO.	HELLOWN DE H. M. PINNING MILL CO. OBT OF THE WORLD COURT OF THE WORLD WORKING CO. HELLOW WORKING CO. HELLOW WORKING CO. HELLOW WORKING CO. HELLOW WORKING CO. HELLOW WORKING CO. H. H. & CO.	Bowen & Burke
	1680	1891		1682 1683		108 108 108 108 108 108 108 108 108 108	-	· · · · · · · · · · · · · · · · · · ·	E

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

# ELEVENTH DISTRICT-Continued.

	For order see corresponding number fol- lowing this table.		7171 1571 7571 7571 8671
	Means of egress.		Openings   1stairway   1stairway   1stairway   1stairways   1717   1717   1721
	Construction.		2 story frame 3 story brick 1 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 2 story frame 3 story brick 2 story frame 3 story brick 5 story frame 5 story frame 6 story frame 7 story brick 7 story brick 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame 8 story frame
	For what purpose used.		Mfg. rough and dressed lumber. Branery. Brewery Rolling mill. Mfg. lumber and veneering. Stoves. Stoves. Stoves. Stoves. Stoves. Stoves. Stoves. Stoves. The carrieg and wagon factory. Manufacturing pig fron. Carriage and spoke factory. Manufacturing fire brick. Gar repairing. Manufacturing nee brick. Garfiage factory. Manufacturing wooden mantels. Carriage factory. Manufacturing wooden mantels. Carriage factory. Manufacturing pig fron. Manufacturing pig fron. Wagon and buggy factory. Wagon and buggy factory. Wagon and buggy factory. Wagon and buggy factory. Wagon and buggy factory. Wandacturing pig fron. Wagon and buggy factory. Manufacturing pig fron. Wagon and buggy factory. Manufacturing pig fron. Wagon and buggy factory. Manufacturing pig fron. Wagon and buggy factory. Planing mill.
	Location of building.		Ohio river Seventh street Front street Second & Muberry streets. Third and Vernon streets. Front street. Tark avenue Heala branch Storms creek East Ironton Ohio river Front street. Front street. Front street. Front street. Front street. Front street. Front street. Front street. Front street. Front street. Front street. Front street. Front street. Second & Lawrence streets. Front street. Second All street. Second street. Second street. Second street. Second street. Second street. Second street. Second street. Second street. Second street. Second street. Second street.
	Name of owner or agent and city or town.	IRONTON-Concluded.	Draver V. J.  Jupuy K. S.  Eagle Brewery  Eagle Brewery  Eagle Iron Co.  Forth Way Electric Light Co.  Goldeamp Milling Co.  Goldeamp Milling Co.  Goldeamp Milling Co.  Goldeamp Milling Co.  Goldeamp Milling Co.  Goldeamp Milling Co.  Goldeamp Milling Co.  From Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Iron Railway Co.  Morrie K. W. A.  Newman & Spaner  Newman & Spaner  Newman & Spaner  Newman & Spaner  Newman & Spaner  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Philips, John Jr.  Shatterianski, J. L.  Shatterianski, J. L.  Shatterianski, J. L.  Shatterianski, J. L.  Shatterianski, J. L.  Shatterianski, J. L.
1	$\mathbf{Z}$ umber		



Dackson street and river.  Little Mismi R. R.  N. & W. R. R.  Grain elevator  Fred and planing mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and grist mill.  Flour and in the control of the co	1 story frame Doors		story frame 2 stairways			2 story frame 3 stairway	9 story frame		story frame 1 stairway.	Oneninos	Doors.	1 story frame Doors		**************************************	3 stairways	3 ' Istairway 1757	 1 stairway 1700	Loofs		Doors			2 stairways	Doors	story irame	Doors.		
Jackson street and river. Little Miamil R. R. Little Miamil R. R.  N. & W. R. R.  Ohlo River.  Chillicothe street.  Chillicothe street.  Firth street.  Second street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Court street.  Coulicothe street.			8							31-	 			Planing mill					-	٠.	-	_	00		- 4		-	ding stone
Sishop, Dr. N. M.  Sirines, H. S.  Lucasville.  Index, John  New Boston.  New Boston.  Olive Furnace.  Portranora.  Portra			N. & W. R. R.			Ohlo River			Thirteenth street	Chillicothe street.	 		Millstreet.	Front street.	Seventh street.	Court street	 	_		Seventh and Market streets	Eleverth street	Gallia street	Fourth street	Chillicothe street		Offner street.	Front street	Second street
THE RESERVE OF THE PROPERTY OF	Bishop, Dr. N. M.	LUCASVILLE.	Grimes, H. S.	MILLER.	Norson way	Little Kanawha Lumber Co	OLIVE FURNACE.	POHTSMOUTH.	N. W. W.		C. C.		Jahart, don From W							to the Distriction	Service Days	Teles Co. cing and Ice Co.	Mell Stove Bre Brick On Machine Works.	Ople mouth Foundry arek Co	Sortemonth Paving Mill Co	Portsmouth Plane and Kank Co.	Portsmouth Street Kar	Portemontal Turn

TABLE XIII-FACTORY BUILDINGS INSPECTED DURING FISCAL YEAR-Continued.

# ELEVENTH DISTRICT-Concluded.

For order see corresponding number fol- lowing this table.	1788		
Means of egress.	Doors 1 stairway 2 stairway 1 stairway 2 stairway 2 stairway 2 stairway 2 stairway 1 stairway 1 stairway	8 stairways	stairway
Construction.	1 story frame 4 story brick 2 2 8 8 8 8 8 8 8 8 8 2 1 story frame	3 story frame	2 story frame
To what purpose used.	Repair shop.  Distillery.  Shoe factory.  Furniture factory than annufacturing clothing.  Manufacturing paper boxes.  Manufacturing paper stuff.  Manufacturing paper stuff.	Flour and grist mill	B. & O. S. W. R. R. Manufacturing fire brick, etc 1 stairway
Location of building.	Gallia street. Chillicothe pike. Front street. Second street. Officiothe street. Front street. Front street.	Oblo river	B. & O. S. W. R. R
Name of owner or agent and city or town.	PORTSMOUTH—Concluded. Simpson Bros. Spring Lane Distilling Co. Star Shoe Co. Walt, J. H. & Son. Weet, Charles Sun. Weet, Charles Same. York St. D. Same. PROCYORYILLE	Bush, G. D.  Sciotoville. Scioto Fire Brick Co. Scioto Star Fire Brick Co. Thompson, Anthony. White, Mary J.	1792 Peiper, J. & Co
Ишрег.	<u> </u>	7871 8871 9871 0471	2071 2071 2071 2071 2071

1 stairway 1798 Doors Openings	1 stair way	1 stairway 1804
2 story frame 2 1 1	8 story frame	3 story frame
Manufacturing drain tile, etc Mfg. blankets, yarns, etc Greamery Mfg. butter and cheese Manufacturing tile, etc	Flour and grist mill	Flour mill.
Pine creek.		
nnston, Jennannston, Jennannston, James and Jennannston, James ersburg, Creamery	Wikids  vely, Levi & Son	1804 Holschuh, Jacob 3 story frame 1 stairway
	Bell, Geo. A.   Pine creek.   Manufacturing drain tile, etc.   2 story frame.   1 staffway.   1736	anufacturing drain tile, etc 2 story frame

#### FACTORY BUILDINGS.

DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.

#### FIRST DISTRICT.

- No. 1—Adams Estate (Cleveland), August 25, 1896—Provide substantial hand-railings on all stairways, automatic (self-closing) elevator gates at elevator openings on first and fourth floors. Complied.
- No. 3—Atwater Estate, W. W. Baldwin, agent (Cleveland), August 7, 1896—Repair and put in good working condition elevator gates and elevator openings: provide substantial hand-railings on all stairways. (Building located in Viaduct.) Complied.
- No. 4—Atwater Estate, W. W. Baldwin, agent (Cleveland), August 7, 1896—Remove all looseplastering from ceiling which is liable to fall at any time and injure employes, would suggest that you replace with three-fourths inch board ceiling. (Building at Arcade and Merwin streets.) Compiled.
- No. 9—J. Bartunek (Cleveland). November 11, 1896—Permanently nail up door opening from shop intoliving room. Compiled.
- No. 11—Mrs. Bemis, C. P. Scoville, agent (Cleveland), September 24, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 15—L. Bondy (Cleveland), January 8, 1896—Provide a water-closet for the exclusive use of female employes of S. Kohn, on same floor where females are employed. Building no longer used for factory purposes.
- No. 16—Wm. Bingham Estate (Cleveland), September 2, 1896—Provide substantial hand-railings on all stairways not having same. Complied.
- No. 17—Thomas Bohnslav (Cleveland), November 11, 1896—Permanently nail up door opening from shop into living room. Complied.
- No. 22 -Brainard Estate, Mrs. Fannie Graves, agent (Cleveland), August 26, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 24—T. H. Brooks (Cleveland), August 12, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor and safety device to catch elevator in case cable should break; would suggest double cables. Complied.
- No. 27-C. F. Brush (Cleveland), September 2, 1896-Repair treads on stairway. Complied.
- No. 28—Buchan Soap Co. (Cleveland), April 13, 1896—Provide substantial railing to enclose elevator opening at second floor except side where gate is located, and provide automatic attachments for gate; if it is necessary to keep two sides of elevator shaft open, provide automatic (self-closing) gate at each opening. Complied.
- No. 31—E. Burant (Cleveland), November 11, 1896—Permanently nail up door opening from shop into living room. Complied.
- No. 33—A. Calta (Cleveland), November 11, 1896—Permanently nail up door opening from shop inteliving room. Compiled.



- No. 34—C. C. Cariton (Cleveland), March 31, 1896—Provide a toilet and dressing-room and watercloset for the exclusive use of female employs of H. N. White and Messrs. J. Pineberg & Co. Not reported as complied.
- No. 36—Cleveland Co-operative Stove Co. (Cleveland), October 13, 1896—Provide substantial handrailings on all stdirways not so provided. Compiled.
- No. 43—Cleveland Veneered Door Co. (Cleveland), April 13, 1895—Provide substantial hand-railings on all stairways. Complied.
- No. 44—Co-operative Stove Co. (Cleveland), August 10, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 49—F. D. Dorman (Cleveland), November 11, 1896—Provide substantial hand-railings on all stairways. Compiled.
- No. 50—J. Dunoesky (Cleveland), November 2, 1896—Permanently nail up door opening from shop into living room. Complied,
- No. 51—East End Foundry Co. (Cleveland), August 12, 1896—Provide a substantial hand-railing on platform leading to cupola. Not reported as complied.
- No. 54—Charles Fierstein (Cleveland), January 28, 1896—Provide a separate and distinct watercloset for the exclusive use of female employes. Complied.
- No. 56—J. L. Fountain (Cleveland), February 4, 1896—Provide on each floor where females are employed a tollet and a dressing-room and water-closet for their exclusive use; set apart a closet for the exclusive use of the male employes and keep same in good sanitary condition at all times; clean up all rubbish and garbage in and around the building and keep surroundings in better sanitary condition; all avenues to stairs and other exits must be kept clear of obstructions; remove partition wall on second floor in portion of building used as a work-room and provide large sliding doors so as to give better ventilation in work-room. Building vacated.
- No. 58—German Publishing House—Reform Church of the U. S. (Cleveland), October 28, 1896—
  Provide automatic (self-closing) elevator gates at elevator openings on each floor.
  Not reported as complied.
- No. 59—A Gilchrist (Cleveland), February 29. 1896—Provide a toilet and dressing-room and watercloset on fifth floor for the exclusive use of female employes; retain closet on third floor for the exclusive use of male employes; provide substantial hand-railings on stairways and automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 61—Glauber Brothers (Cleveland). October 26, 1896—Provide substantial hand-railings on all stairways not having same. Not reported as complied.
- No. 63—Gorsuch & Brewer (Cleveland), August 12, 1896—Provide substantial hand-railings on stairway in rear part of building, owned by F. M. Gorsuch; and a new stairway in portion of building owned by N. C. Brewer. Complied.
- No. 64—S. C. Greene (Cleveland), September 24, 1896—Provide substantial hand-railings on all stairways. Compiled.
- No. 65—Mrs. H. Grossman (Cleveland), August 7, 1896—Provide tollet and dressing-room and water-closet on each floor where females are employed, for their exclusive use; automatic (self-closing) elevator gates at elevator openings on each floor; repair stairways where worn out. Building will be remodeled.
- No. 66—Harkness Estate, G. J. Bailey, agt. (Cieveland), August 7, 1896—Provide substantial hand-railings on all stairways; water-closet on second floor; a guard rail at elevator openings on each floor as instructed by inspector. Complied.
- No. 67—Harris Brothers (Cleveland), January 8, 1896—Reserve water-closet in rear of building for the exclusive use of male employes; provide a toilet and dressing-room and water-closet, for exclusive use of females, on each floor where employed. Complied.
- No. 72—V. Herant (Cleveland), November 11, 1896—Permanently nail up door opening from shop-into living room. Complied.
- No. 73—Mrs. Dr. Hines (Cleveland), August 26, 1896—Provide substantial hand-railings on all stairways. Complied.



- No. 74—John Holecek (Cleveland), January 8, 1896—Provide a toilet and dressing-room and watercloset for the exclusive use of female employes. Compiled.
- No. 76—Hughes Steam Pump Co. (Cleveland), September 15, 1896—Provide substantial hand-railings on stairways in portion of building occupied by City Steel Range Co. Compiled.
- No. 82-G. C. Julier (Cleveland), July 28, 1896—Provide substantial hand-railings on all stairways.

  Compiled.
- No. 83—Kelly Estate, A. S. Kelly, agt. (Cleveland), September 24, 1896—Provide substantial hand-railings on stairways. Compiled.
- No. 84-J. Kokacka (Cleveland). October 28, 1896—Permanently nail up door opening from ahop into living room. Compiled.
- No. 87—Aug. Krueger (Cleveland), October 28, 1896—Permanently nail up door opening from shoo into living room; repair ceiling where plastering has fallen off; provide better ventilation by tearing out partitions; provide separate and distinct water-closet for the exclusive use of female employes. Complied.
- No. 90—F. Kuhlman (Cleveland), September 1, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor; substantial hand-railings on all stairways not so provided. Complied
- No. 91—Wm. H. LaFountaine (Cleveland), September 1, 1896—Provide substantial hand-railings on all stairways not having same. Complied.
- No. 92—Lake Shore Saw Mill and Lumber Co. (Cleveland), August 12, 1896—Provide substantial hand-railings on stairs and around stair openings. Complied.
- No. 93—J. Landesman (Cleveland), July 28. 1896—Cover or countersink all projecting set-screws in collars on shafting; provide a substantial casing or railing around fly and bandwheel of engine; provide automatic (self-closing) elevator gates at elevator openings on each floor. Partially compiled.
- No. 94—Jacob Landesman (Cleveland), January 80, 1896—Provide better means of egress from building by erecting a fire-escape on the north or High street side of building, balcony at top floor to take in three middle windows, or one window on each side of stair hall, balconies at fourth, third and second floors to take in corresponding windows and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground, from the top balcony an iron ladder made rigid to same and to extend to roof, escape to be constructed in accordance with specifications furnished by the department. Compiled.
- No. 96—I. Levy (Cleveland), August 7, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 97—U. Macan (Cleveland), November 2, 1896—Permanently nail up door opening from shop into living room Members of family only working.
- No. 98—J. Marek (Cleveland), November 2, 1896—Permanently nail up door opening from shop into living room; also window between shop and kitchen. Complied.
- No. 90—Mrs. E. Martinec (Cleveland), November 2, 1896—Permanently nail up door opening from shop into living room. Firm are building separate shops in rear of yard.
- No. 100-Daniel Moeder (Cleveland), January 28, 1896—Provide a toilet and dressing-room and water-closet for the exclusive use of female employes of S. Wenzimer on same floor where employed. Will remodel building soon.
- No. 102—F. Monak (Cleveland). November 2, 1896—Permanently nail up door opening from shop into living room. Complied.
- No. 106—Ohio Baking Co. (Cleveland), July 28, 1896—Provide substantial hand-railings on all stair-ways Complied.
- No. 110-H. B. Payne (Cleveland), September 15, 1896-Provide substantial hand-railings on a stairways. Compiled.



- No. 111—Peerless Manufacturing Co. (Cleveland), February 29, 1896—Provide a stout rope on attic floor, fastened near window facing C. & P. Railroad, to permit escape therefrom in case of emergency. Complied.
- No. 112--Jacob Perkins (Cleveland), August 12, 1896—Provide substantial hand-railings on stairs.

  Compiled.
- No. 118—H. Pilet (Cleveland), January 8, 1896—Provide a toilet and dressing-room and water-closet for the exclusive use of female employes. Complied.
- No. 115-C. P. Ranney (Cleveland), August 12, 1896-Provide a substantial hand railing on stairway. Compiled
- No. 116—River Machine and Boller Co. (Cleveland), July 22, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 117—Root & McBride (Cleveland), April 29, 1896—Provide a fence around elevator opening at each floor to prevent employes from passing onto or over floor doors. Compiled.
- No. 120—Henry Schauer (Cleveland), October 28, 1896—Nail up door leading from shop to living room and keep same closed at all times. Complied.
- No. 121—G. T. Schofield, agent, (Cleveland', July 28, 1896—Provide better means of ventilation on fourth floor by arranging sky-light or portion of same on hinges so that it can be opened; automatic (self-closing) elevator gates at elevator openings on each floor. Not reported as compiled.
- No. 122—Severance Estate, L. S. Severance, agent (Cleveland), November 14, 1896—Repair stairs leading from second to third floor and provide substantial hand-railings on same; repar floor of elevator. Complied.
- No. 123-L. S. Severance (Cleveland), September 1, 1896—Repair automatic gates at elevator openings and keep same in good working condition; provide substantial hand-railings on all inside stairways not having same. Not reported as compiled.
- No. 125—L. M. Sigle. (Cleveland) August 25, 1896—Provide better means of egress from building by erecting a fire-escape on the south end of the building, balconies at each floor to take in the two middle windows and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from first balcony above the ground a flight of stairs to come down to within ten feet of the ground; from top balcony an iron ladder made rigid to same and to extend to roof, fire-escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-rallings on all stairways. Complied.
- No. 128—Mrs. Francis Simmons (Cleveland), January 28, 1896—Provide a water-closet for the exclusive use of female employes of Max Evenchik. Order held in abeyance.
- No. 127—Henry G. Slatmeyer (Cleveland), April 29, 1896—Provide better means of egress from building by erecting a fire-escape on the north side of building, balcony at top floor to take in one window near northeast corner, and stairs to descend westwardly in such manner as to take in one window with balcony at each floor, stairs to be twenty-one inches wide eight-inch rise and eight-inch tread and from balcony at second floor a flight of stairs to come down to within ten feet of the ground, from the top balcony an iron ladder made rigid to same and to extend to roof; fire-escape to be constructed in accordance with the specifications furnished by department. Compiled.
- No. 128—Henry Slatmeyer (Cleveland), July 22, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor; an iron ladder made rigid to top balcony of fire-escape, same to extend to roof. Complied.
- No. 130—B. Spiricus (Cleveland), November 2, 1896—Permanently nail up door opening from shop into living room. Not in operation.
- No. 131—Standard Foundry Co. (Cleveland), April 13. 1896—Case up side of elevator shaft next to stairs ascending to cupola; provide automatic (self-closing) elevator gate at elevator opening at cupola floor. Discontinued the use of the elevator.
- No. 133—Standard Oil Co. Compound Plant No. 2 (Cleveland), January 4, 1896—Provide substantial hand-tailings on lower flight of stairs in mill room. Complied



- No. 186—H. Steffen (Cleveland), October 28, 1896—Permanently nail up door opening from shop into living room. Complied.
- No. 138-Joseph and Solomon Strauss (Cleveland), January 4, 1896-Provide a toilet and dressingroom and water-closet for female employes of Postal Cigar Co., on same floor where females are employed. Compiled.
- No. 140—G. A. Tinnerman (Cleveland). October 28, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor; repair floor of elevator; remove stairway located in center of building to some point where employes will not come in contact with shafting while ascending or descending. Complied.
- No. 145—Turner Worsted Co. (Cleveland), February 11, 1896—Keep careful watch of elevator cable and allow no one to ride on elevator until new cable is provided. Complied.
- No. 152—Universal Steam Cleaning and Dyeing Co. (Cleveland), August 12, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 152—J. Vacha (Cleveland), November 2, 1896—Permanently nail up door opening from shop into living room and keep same in this condition as long as building is used for manufacturing purposes. Not now used for manufacturing; will comply when used for manufacturing purposes.
- No. 155—Ignatz Vacha (Cleveland), October 28, 1896—Permanently nail up door opening from shop into living room. Complied.
- No. 159—Joe Vetroves (Cleveland). November 11. 1896—Remove all cooking and household utensits from room used as tallor-shop; permanently nail up door opening from shop into living room. Compiled.
- No. 160—Vincent Estate, Mrs. Mary Hines, agent (Cleveland), August 12, 1895—Provide substantial hand-railings on stairs. Complied.
- No. 168 Waring Estate, F. G. Herrick, agent (Cleveland), September 24, 1896 Provide substantial hand-railings on all stairways; repair treads of stairs that are in bad condition; provide railing around hoist openings on each floor; repair roof where it leaks. Compiled.
- No. 165—Judge Williamson (Cleveland), November 14, 1896—Provide some safety device to catch elevator in case cable should break, would suggest double cables: automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No 166—E. P. Williams (Cleveland), November 2, 1896—Provide substantial hand-railings on stairways; repair flooring on third floor, also repair doors at elevator openings and keep same in good condition. Complied.
- No. 167—George Worthington Estate (Cleveland), November 11, 1896—Provide substantial handrailings on all stairways, and automatic (self-closing) elevator gates at elevator openings on each boor. Complied.
- No. 168—George Worthington Estate (Cleveland), November 11, 1896—Repair elevator gates and put same in good working condition in portion of building occupied by the Central Knitting Co. Compiled.
- No. 169—Young & Fulton Lumber Co. (Cleveland), July 22, 1896—Provide substantial hand-railings on stairways. Compiled.
- No. 170—William Zeitz (Cleveland), January 28, 1896—Provide a toilet and dressing-room and water-closet for the exclusive use of female employes of Max Lichman, on each floor where employed. No longer occupied.



#### SECOND DISTRICT.

- No. 171—Brown, Harter & Brown (Akron), October 15, 1896—Take down the rear of west wall or the foundation, also the wall between wash room and ironing room and rebuild; provide a new floor in laundry room; repair wall between pastry room and kitchen, also repair celling in kitchen; provide tie-rods through building, tie-rods to be made of one and one-fourth inch round iron extending both ways through building and through the walls with a six-inch washer drawn up tight with nut. Complied.
- No. 172—Scott & Munson (Apple Creek), September 30. 1896—Provide substantial hand-railings on stairway leading to basement, also on stairs leading to third floor and around stair opening on third floor. Compiled.
- No. 178—Ashtabula Carriage Bow Co. (Ashtabula), December 19, 1895—Provide substantial handrallings on both stairways leading to second floor. Compiled.
- No. 175—Ashtabula Municipal Lighting Plant (Ashtabula: December 19, 1895—Remove portion of brick wall at battery boilers No. 3 and No. 4 and rebuild or stay them with iron columns similar to the ones in use at the other battery, and tie with one and one-fourth inch tie rods through both walls with a six inch washer and nut on the outside drawn up tight. Complied.
- No. 176—Ashtabula Rapid Transit Co. (Ashtabula), December 19, 1895—Provide proper closet facilities for the use of employes. Complied.
- No. 177—Ashtabula Tool Co. (Ashtabula), December 19, 1895—Provide automatic (self-closing) elevator gates at elevator opening on each floor. Compiled.
- No. 179—Bradley Manufacturing Co. (Ashtabula), December 19, 1896—Provide automatic (self closing) elevator gates at elevator openings on each floor at both elevators. Complied.
- No. 182—Edgar Hall (Ashtabula), December 19, 1895—Provide substantial hand-railings on stairways leading to second floor; toilet and dressing-room and water-closet for the exclusive use of female employes, on each floor where employed. Compiled.
- No. 184-W. S. McKinnon (Ashtabula), January 2, 1896—Provide 8x8 inch columns and girders in place of the ones now in use, the present ones are too light and out of plumb; substantial hand-railings on stairs leading to line shafting. Complied.
- No. 185—C. J. McNutt (Ashtabula), December 19, 1895—Provide substantial hand-railings on stairway leading to second floor. Complied.
- No. 191—A. H Tyler (Ashtabula), January 2, 1896—Provide substantial hand-railings on front and rear stairways. Building vacated.
- No. 192—George E. Williams (Ashtabula), December 19, 1895—Provide substantial hand-railings on stairway leading to second floor. Complied.
- No. 195—Wm. Heyer (Conneaut), January 22, 1896—Provide new girders and columns to support second floor, either iron or wood; if wood is used, columns and girders to be made of 8x8-inch timber. Complied.
- No. 196—J. H. Judson (Conneaut), January 22, 1896—Provide a toilet and dressing-room and watercloset for the exclusive use of female employes. Not reported as compiled.
- No. 201—Creston Milling and Produce Co. (Creston), September 30, 1896—Close up all openings on third and fourth floors except stair openings. Complied.
- No. 204—Lutz Brothers (Creston). September 30, 1896—Provide substantial hand-railings for stairways in engine room; better ventilation for second story, which can be done by making openings in roof and cover with canopy to keep out rain or snow. Hand-railing for stairways compiled with. Second story not in use; will comply when used.
- No. 205—Pittsburg & Lake Eric Dock Co (Fairport), October 15, 1896—Provide substantial handrailings on stairs in boiler room. Compiled.
- No. 207—Imperial Flouring Co. (Fredericksburg), September 30, 1896—Provide suitable door on third floor, as explained by the Inspector. Compiled.



- No. 211—Sherman Bruce (Garrettsville), August 6, 1896—Provide automatic (self closing) elevator gates at elevator openings at second floor, also doors for openings in second floor as instructed by the Inspector. Complied.
- No. 212—Garrettsville Foundry and Machine Co. (Garrettsville), August 6, 1896—Provide a substantial casing or railing around opening in second floor over boiler, also hand-railings on stairs and around stair openings. Compiled.
- No. 218—Hunt, McConnell & Tildon (Garrettsville) August 6, 1896—Provide substantial handrailings on stairs leading to second floor. Complied.
- No. 214—Payne Electric Co. (Garrettsville), August 6, 1896—Provide substantial hand-railings on stairs leading from dynamo to outer door. Complied.
- No. 215—Nelson Steel (Garrettsville), August 6, 1896—Provide substantial hand-railings on all stairways and doors for all openings in second floor. Compiled.
- No. 217—Geneva Cycle Co. (Geneva), February 5, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 219—Geneva Skewer Co. (Geneva), February 5, 1896—Provide substantial hand-railings on stairway leading to second floor. Gone out of business.
- No. 222—Munger Estate (Geneva). February 24, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor; new beam in place of the one that is broken beneath cage of elevator; case up end of platform of elevator two or three feet high to prevent any one from getting their feet caught between elevator and wall. Not reported as compiled.
- No. 224—S. Beach & Sons (Jefferson), January 2, 1896—Provide substantial hand-railing around stair opening on second floor. Complied.
- No. 227-C. N. Royce (Jefferson), January 2, 1896-Provide substantial hand-railing around stair opening on second floor. Complied.
- No. 228—Eric Railway Car Repair Shops (Kent), July 29, 1896—Provide substantial hand-railings on stairway leading to third floor, and automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 229—Fisher Brothers (Kent), July 29, 1896—Provide substantial hand-railings on stairways and around stair openings. Complied.
- No. 232—Railway Speed Recorder Co. (Kent), July 29, 1896—Provide new treads for stairs in south end of building. Compiled.
- No. 235—Exchange Bank of Madison (Madison), October 15, 1896—Provide substantial hand-railing on stairway leading from west tramway to the ground and repair floor of tramway; substantial hand-railing around stair opening at second floor; a trap door for opening in second floor. Compiled.
- No. 236—Miller & Lapham (Madison), October 28, 1896—Provide substantial hand-railings on stairs leading from second floor to loft; provide trap door in floor over wheat bin. Complied.
- No. 237—Hine & Cook (Mantua), August 5, 1896—Provide substantial hand-railings on stairs and around stair opening in finishing department. Complied.
- No. 238—Clinton Broadway (Medina), September 30, 1896—Provide a toilet and dressing-room and water-closet for the exclusive use of female employes; repair floor in wash-room Compiled.
- No. 241—A. I. Root & Co., Building No. 4—(Medina), September 30, 1896—Provide substantial handrailings on stairways leading to third floor. Complied.
- No. 243-O. C. Shepard Co. (Medina), September 30, 1896-Provide substantial hand-railings on all stairs and around all stair openings not so provided. Complied.
- No. 244—George E Webber & Co. (Medina), September 30, 1896—Provide substantial hand-railings on all stairways not so provided and around stair opening on fourth floor. Complied.



- No. 247—Charles H. May (Orrville), September 30, 1896—Provide substantial hand-railing around stair opening at third floor; automatic (self-closing) elevator gates at elevator openings on each floor. Not reported as complied.
- No. 248—Orrville Heat and Power Co. (Orrville), September 30, 1896—Provide a door for opening leading to boiler room. Compiled.
- No. 250—Orrville Milling Co. (Orrville), September 30, 1896—Provide substantial railing on platform and also hand-railing on outside stairs leading from platform to ground. Complied.
- No. 252—Orrville Waterworks (Orrville), September 30, 1896—Provide suitable water-closet facilities for the use of employes Compiled.
- No. 258—Coe & Wilkes (Painesville), October 15, 1896—Repair stairway in foundry department and provide substantial hand-railing on same. Compiled.
- No. 255—Geauga Foundry Manufacturing Co. (Painesville), October 15, 1896—Provide substantial hand-railings on stairway in machine shop. Complied.
- No. 257—R. Larue (Painesville). October 15, 1896—Provide substantial hand-railings on all outside stairways. Compiled.
- No. 258-S. L. Malin & Son (Painesville), October 15, 1896—Provide substantial hand-railings on outside stairway leading from second story to ground. Complied.
- No. 259—Moody & Co. (Painesville), October 15, 1896—Provide substantial hand-railing on stairway leading to fifth floor and close up east end of stair opening about three feet at fourth floor, as instructed by the Inspector. Complied.
- No. 262—Thompson Brothers (Painesville), October 15, 1896—Provide suitable closet facilities for the use of employes and keep same in good sanitary condition at all times. Factory closed; will comply when business resumes.
- No. 264—Buckeye Chair Co. (Ravenna), August 5, 1896—Arrange elevator doors so they will close automatically on second and third floors; repair side catches to elevator and put the same in good working condition. Compiled.
- No. 266—Mishler Brothers (Ravenna), August 5, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 270—H. W. Riddle (Ravenna), August 5, 1896—Provide railing around elevator openings; substantial hand-railings on stairways in planing mill department. Complied.
- No. 271—Trotter & Gamble (Ravenna), August 5, 1895—Provide substantial hand-railings on stairs and around stair openings. Compiled.
- No. 273—Wark & Co. (Ravenna), August 5, 1896—Provide substantial hand-railings on all stairways: move stairway passing separator farther north to allow a better aud safer passageway. Compiled.
- No. 275—M. D. Laughlin (Seville), September 30, 1896—Provide substantial hand-railings on stairs leading to basement, also railing around stair opening in attic. Compiled.
- No. 278-D. I. Slemmons (Sterling), October 1, 1896-Provide substantial hand-railings on stairways from first to third floors; substantial railing along west side of opening on fourth floor. Compiled.
- No. 284—Wadsworth Milling Co. (Wadsworth), October 1, 1896—Provide new treads for stairs in engine-room and substantial hand-railings on stairs. Complied.
- No. 288—Greely & Co. (West Salem), September 30, 1896—Repair roof or provide new one; close all openings in floor except stairway openings. Complied.
- No. 292-W. B. Owen (Wickliffe), October 28, 1896-Close the opening in second floor near steam press; provide substantial hand-railings for stairways. Compiled.
- No. 294—E. W. Bond (Willoughby), October 28, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 295—E. W. Bond (Willoughby), October 28, 1895—Provide substantial hand-railings on stairway leading to second floor. Complied.



- No. 296—Cleveland, Painesville & Eastern Railway Co. (Willoughby), October 23, 1896—Provide substantial hand-railings on stairway leading from condenser pit. Compiled.
- No. 297—Hopkins & Cone (Willoughby), October 28, 1896—Provide suitable closet facilities for the use of employes and keep same in good sanitary condition. Complied.
- No, 299—J. W. Penfield & Son (Willoughby), October 28, 1896—Provide substantial hand-railings on all stairways; substantial casing or railing around elevator openings of elevator used in hoisting building blocks on upper floor, easing or railing to be eighteen inches or two feet high. Complied.
- No. 301—B. Barrett Sons (Wooster). August 13, 1896—Provide substantial hand-railings around stair opening in third floor and on stairway leading from third to second floor. Complied.
- No. 304-D. C. Curry & Co. (Wooster), August 13, 1896—Repair hand-railings on outside stairs.

  Complied.
- No. 305—H. J. Heinze (Wooster), August 13, 1896—Close up all openings in the floor in the north end of the building; provide substantial hand-railings on all stairways. Complied.
- No. 306—Lew Howard (Wooster), August 13, 1896—Provide suitable closet facilities for the use of employes; a new roof for building or repair old one; substantial hand-railings on stairs and around stair openings. Complied.
- No. 307-J. H. Hauke (Wooster), August 13, 1896-Provide support under cross beam to strengthen joists of floor over wash-room; a door in opening in wash-room floor. Complied.
- No. 308—Landes & Smoke (Wooster), August 13, 1896—Provide substantial railing around platform
  at head of outside stairs, also around stair opening in second floor; fill in open space
  between inside stairs and partition wall. Compiled.
- No. 309—Plank & Gray (Wooster), August 13, 1896—Provide substantial hand-railings on stairs leading to second floor. Compiled.
- No. 312—Thompson & Davis (Wooster), August 18, 1896—Provide suitable water-closet for the exclusive use of female employes. Complied.
- No. 317—Wooster Sliding Blind Co. (Wooster), August 13, 1896—Provide substantial hand-railing on stairway leading to second floor. Compiled.
- No. 324—Brown, Bonnell Iron Co. (Youngstown), April 10, 1896—Both side walls of casting house are broken badly and considerably out of plumb, and in their present condition are dangerous; it will be necessary to make building safe, to take down both walls and rebuild from the foundation; repair second floor of engine house. Complied.
- No. 34i—Mahoning Valley Iron Co. (Youngstown), March 25, 1896—Provide substantial casing or railing at stair opening at the nail department. Not reported as complied.
- No. 362—Youngstown Specialty Co. (Youngstown), March 25, 1896—Provide a toilet and dressingroom and water-closet for the exclusive use of female employes. Not reported as compiled.

# THIRD DISTRICT.

- No. 367—Mrs. C. Egle (Bellevue), December 18, 1895—Provide proper closet facilities for the use of the employes of W. H. Grant. Complied.
- No. 375—Elyria Lumber Co. (Elyria), April 3, 1896—Repair the foundation of dry-room adjoining engine room, in its present condition it is unsafe and should have your immediate attention; the chimney of the steam boilers is in a defective condition and should be torn down below the tissues in brick wall and rebuild or put bands around it in such manner as to keep walls from spreading. Not reported as complied.



- No. 878—Garford Manufacturing Co. (Elyria), June 9, 1896—Provide better means of egress from building by erecting fire-escape on east side, placing a landing forty-two inches wide at third floor to cover south window in east wall, from landing a stairway twenty-one inches wide, eight-inch rise and eight-inch tread, to descend to landing or balcony forty-two inches wide, to be provided at middle window on second floor, from landing at second floor, a flight of stairs the same width and rise and tread, to descend within ten feet of the ground; on the north side of the building place a landing forty-two inches wide to take in first window from northwest corner, from landing a stairway twenty-one inches wide, eight-inch rise and eight-inch tread, to descend to landing at second floor, landing to take in first window and to be of the same width, as landing at third floor, from landing stairway same width, rise and tread to descend within ten feet of the ground; fire-escapes to be constructed in accordance with specifications furnished by this department. Complied,
- No. 886—Christy Knife Co, (Fremont). December 3, 1895—Provide a substantial railing around both small elevators, substantial hand-railings on all stairways; thoroughly cleanse and disinfect water-closet used by males and keep same in good sanitary condition at all times. Complied.
- No. 392—Fremont-Furniture and Cot Co. (Fremont), December 12, 1896—Provide a new cable for elevator in three story building; springs for doors at elevator openings at second floor in same building. Complied.
- No. 394—A. H. Jackson (Fremont), December 3. 1895—Provide a flight of stairs from door in rear of three-story building to descend to and land on roof of two-story building in rear; change exit door at foot of stairs to open outward; provide substantial handrallings on all stairs; remove all electric light wires from roof of two story building. Compiled.
- No. 402—Thompson, Houston Carbon Co. (Fremont), December 12, 1895—Provide ventilators over retorts in roof of retort room. Not reported as complied.
- No. 407—Wickland Manufacturing Co. (Fremont)? December 3, 1895—Provide substantial railings around stairs at second floor. Complied.
- No. 414—Johnson (Co. (South Lorain). April 13, 1896—Provide substantial hand-railing on side of elevated runway used by oiler in converter building. Compiled.
- No. 420—Johnson & Co. (South Lorain), April 13, 1896—Provide substantial hand-railing on side of elevated runway used by oller in machine shop. Compiled.
- No. 428—Johnson & Co. (South Lorain), April 13, 1896—Provide substantial hand-railing on side of elevated runway used by oiler; also on outside of walk of elevated track in Bessemer boiler house. Compiled.
- No. 425—Johnson & Co. (South Lorain), April 18, 1896—Provide substantial hand-railing on side of elevated runway used by oiler in shape mill boiler house. Compiled.
- No. 428—Johson & Co. (South Lorain), April 18, 1896—Provide substantial hand-railings in planing mill. Complied.
- No. 435--Williams-Barrow Co. (Lorain), December 30, 1895--Provide an iron ladder from middle window on fourth floor to descend to engine-room. Complied.
- No. 439—J. P. Rummel (Mansfield), March 26, 1895—Provide better means of egress from building by erecting a fire-escape on the south side; balcony at third floor to take in first window from west corner, with a flight of eight-inch rise and eight-inch tread stairs to descend eastward to a four-foot easy or landing at third window from west corner at second floor, thence to within ten feet of the ground; escape to be constructed in accordance with the specifications mailed under separate cover. Complied.
- No. 441—D. Wheaton (Norwalk), October 29, 1896—Support second floor by girders and columns, columns to extend to basement, resting on good foundation, supports to be placed beneath machines located on second floor; provide substantial hand-railings on all stairways, provide separate water-closet for the exclusive use of female employes. Not reported as compiled.
- No. 443—Warwick Electric Co. (Wellington), September 2, 1896—Provide substantial hand-railings on all stairways; automatic (self-closing) elevator gates at elevator openings at first and second floors. Plant reported to be sold.



#### FOURTH DISTRICT.

- No. 445—Garrison, Greesey & Summers (Alvordton), July 15, 1896—Provide better ventilation in hoop department by constructing two ventilators through ridging of roof, one ventilator to be directly over boiler and one in center of building, ventilator over boiler to be not less than four feet wide and six feet long, ventilator in center of building to be four feet wide and ten feet long, ventilators to extend above roof not less than four feet, with windows so arranged that they can be opened and closed from the floor. Compiled.
- No. 446—Garver, Rhoads & Garver (Alvordton), July 15, 1896—Provide a ventilator directly over front end of boiler, ventilator to be not less than four feet wide and six feet long, and so arrange that it can be opened and closed by the fireman, ventilator to extend up through the roof: provide efficient closet facilities for the use of employes. Not reported as compiled.
- No. 447—John Hutson (Alvordton), July 15, 1895—Discontinue use of north wing of building for storing brick and drain tile, that portion of building is out of plumb, leaning badly, and is liable to collapse. Complied.
- No. 448—L. H. Hosler & Sons (Alvordton), July 15, 1896—Provide substantial hand-railings on stairs and around stair openings. Complied.
- No. 458--Bryan Candy and Cracker Case Co. (Bryan', June 1, 1896--Provide substantial hand-railings on all stairways and around all stair openings. Complied.
- No. 460—Bryan Plow Co. (Bryan), June 1, 1896—Provide a substantial casing or railing around all hatchways above the first floor; cover well in rear of building. Partially complied.
- No. 461—G. A. & P. Christman (Bryan), June 1, 1896—Provide substantial hand-railings on all stairways and around all stair openings. Building destroyed by fire.
- No. 464—Halm Brewing Co. (Bryan), June 11, 1896—Provide substantial hand-railings on stairs leading from first floor to basement. Compiled.
- No. 466—Long & Riggs (Bryan), June 11, 1896—Provide better ventilation in wash-room or frame building by putting in three ventilators, same to be made of galvanized iron and to extend from ceiling of washroom out through roof of building, ventilators to be placed at equal distance apart and to be one foot in diameter, with canopy top to keep out rain and snow. Not reported as compiled.
- No. 467—Niederaur Brothers (Bryan), June 1, 1896—Repair outside stairs, as they are in an unsafe condition at present time. Compiled.
- No. 471—Buckeye Stave Co. (Columbus Grove), October 30, 1896—Provide efficient closet facilities for the use of employes, and keep same in good sanitary condition at all times. Compiled.
- No. 475—A. Crawford (Columbus Grove), October 30, 1896—Provide substantial hand-railings on all stairways and around all stair openings. Compiled.
- No. 476—A. H. Day (Columbus Grove), October 30, 1896—Provide substantial hand-railing on stairway leading from second to third floors. Compiled.
- No. 479—Buckeye Elevator Co. (Continental), October 16, 1896—Provide substantial hand-railings on stairway leading from engine and boiler room. Complied.
- No. 484—United Elevator Co. (Continental), October 16, 1896—Provide a floor over girders at top of bins; a stairway in place of present ladder to ascend and descend; suitable closet facilities for the use of employes, and keep same in good sanitary condition at all times. Complied.
- No. 488—Niezer & Co. (Convoy), May 19, 1896—Provide efficient closet facilities for the use of employes, and keep same in good sanitary condition. Not reported as complied.
- No. 491—Delphos Electric Light and Power Co. (Delphos), April 14, 1896—Provide suitable closet facilities for the use of employes. Compiled.
- No. 494—Miller & Morton (Delphos). April 14, 1896—The west and north walls of boiler and engine house, located at Canal and Mill streets, are in a very bad condition, both walls should be taken down and rebuilt, including foundation. Compiled.



- No. 495—Miller & Morton (Delphos), April 14, 1896—Provide suitable closet facilities in building located on West and Third streets, for the use of male employes; closet used by females must be entirely separate from that used by males. Complied.
- No. 499—M. Kelley & Co. (Edgerton), July 22, 1896—Provide substantial hand-railings on stairways and around stair openings. Compiled.
- No. 501—Ellerbrock, Uphaus & Co. (Glandorf), November 23, 1896—Provide substantial hand-railing around stair-opening in attic floor. Complied.
- No. 503-J. T. Nartker (Glandorf). November 23, 1896—Provide substantial hand-railings on all stairways and around all stair openings. Compiled.
- No. 508—N. Z. Prentice (Grover Hill), October 2, 1896—Provide substantial hand-railings on stairways and around stair openings. Compiled.
- No. 509—Welsh & Stolz (Grover Hill), October 2, 1896—Provide substantial hand-railings on both sides of attic floor, also on stairways and around stair openings. Not reported as compiled.
- No 512—Buckeye Stave Co. (Leipsic), November 23, 1896—Provide suitable water-closet for use of male employes. Compiled.
- No. 513—Churchill & Co. (Leipsic), November 23: 1896—Provide suitable water-closet for use of male employes. Compiled.
- No. 518—W. C. Miller & Son (Leipsic). November 23, 1896—Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 529—S. B. Carpenter (Montpelier), July 15, 1896—Building and machinery is in a very bad condition; line-shafting entirely too light to drive amount of machinery required of it: line-shafting has never been turned up true, is running in wooden boxes and liable to twist off; there should be a new lineshaft, not less than three inches in diameter, with proper iron boxes and substantial hangers; new frame-work and boxes for swing-saw and a hood or cover for swing-saw, hood or cover to be fastened to frame-work and extend down over front of saw as far as practicable; a new roof on building, present one is very bad and part of roof entirely gone. Not reported as compiled.
- No. 588—Montpelier Municipal Plant (Montpelier), July 15, 1896—Provide suitable closet facilities for the use of employes. Not reported as complied.
- No. 585—J. C. Hoffman (Ohio City), April 14, 1896—The door in engine room located near main belt must be fastened up to prevent employes passing under belt. Removed to Kentucky.
- No. 545—Mrs. J. Leopold (Ottawa), November 23, 1896—Provide substantial hand-railings on stairways and around stair-openings. Complied.
- No. 546—Ottawa Electric Light Co. (Ottawa), November 23, i896—Provide suitable closet facilities for the use of employes. Compiled.
- No. 551—Herzer Elevator Co. (Paulding), July 23, 1896—Provide substantial hand-railing on east side of stairway. Compiled.
- No. 552—James Lynn (Paulding), July 24, 1896—Provide a new foundation in center part of brick drying shed, present foundation is giving way; building is out of plumb and leaning. Not reported as complied.
- No. 557—Frank Windiate (Paulding), August 4, 1896—Provide hand-railings on both sides of inside stairway at front of building from top to bottom. Partially compiled.
- No. 565—Z. H. Travis (Payne), October 2, 1895—Provide substantial hand-railings on all stairways and around stair openings. Not reported as compiled.
- No. 566—E. V. & I. J. Enis (Pioneer), July 23, 1896—Provide separate and distinct water-closet for the exclusive use of female employes; stairway leading from street to hall on outside of building must be taken down, supports under same are decayed and steps are liable to fall at any time. Not reported as complied.
- No. 567-M. T. Hodson (Pioneer), July 23, 1896-Provide efficient closet facilities for the use of employes. Not reported as complied.



- No. 568—Chas. A. Kerr (Pioneer), July 23, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 569—Tri-State Alliance Printing Co. (Pioneer), July 23, 1896—Provide a separate and distinct water-closet for the exclusive use of female employes. Compiled.
- No. 571—Leeson Cooperage Co. (Scott), June 1, 1896—Repair brick wall on west side of boilers; wall is bulged out five or six inches. Factory closed.
- No. 574—Northwestern Milling Co. (Stryker), July 22, 1896—Provide substantial hand-railings on stairs and around stair openings. Compiled.
- No. 575-J. D. Rumsey & Co. (Stryker), July 22, 1896-Provide substantial hand-railings on stairs. Complied.
- No. 576—Stryker Manufacturing Co. Stryker, July 22, 1896—Provide tie-rod of one and one-fourth round iron at west end of building, one end to be placed at plate close to roof at south corner, the other end placed down as low as possible to first floor and fastened to brick wall at engine and boiler-room building, rod to be made solid so as to pull upper corner of building back to a plumb line, corner is now out of plumb about eight or ten inches: corner of building cannot be pulled back to its original position, it will be necessary to take second story down and rebuild. Complied.
- No. 579—R. J. Cavet (Van Wert), May 19, 1896—Provide substantial hand-railings on all stairways not having same. Compiled.
- No. 582—Thomas Geppert (Van Wert), April 21, 1896—Provide suitable closet facilities for the use of male employes: also one separate and distinct water-closet for the use of female employes; provide substantial hand-railings on stairs leading from second to third floor; south wall of building is in very bad condition and should be repaired at once; would advise taking wall down and rebuild; provide better means of egress from third story by erecting an outside stairway, balcony to take in center window, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof below, balcony and stairs to be twenty-four inches wide and to be constructed of hard wood. Compiled.
- No. 588—H. C. Glenn (Van Wert), April 21, 1896—Level up the building and place new sills under same where the old ones have rotted; first floor of laundry is in bad condition and must be repaired or new floor put down. Complied.
- No. 590-J. W. Norris & Son (Van Wert), April 21, 1896—Provide a separate and distinct watercloset for the exclusive use of female employes. Partially complied.
- No. 593—Union Mills Flouring Co. (Van Wert), April 21, 1896—Provide substantial hand-railings on stairways and around stair openings. Complied.
- No. 598—M. Woodruff (Van Wert), April 21, 1896—Provide suitable closet facilities for the use of male employes. Complied.
- No. 599—Wooley & Coombs (Van Wert), May 19, 1896—Provide efficient closet facilities for the use of employes and keep same in good sanitary condition. Complied.
- No. 6(4—Beach and Rings (West Unity), July 15, 1896 -Provide substantial hand-railings on stairs and around stair openings. Complied.
- No. 605—Beach & Rings (West Unity). July 15, 1896—Provide water-closet for the exclusive use of female employes. Complied.
- No. 607—Hale Brothers (Willshire), June 1. 1896 Provide substantial hand-railings on both sides of stairways leading from first floor of mill to basement and engine-room. Not reported as complied.
- No. 608—Joseph Tarault (Worstville), October 2, 1896—Repair roof over saw-mill building, by straightening up roof and putting new foundation under roof supports, the foundation under roof supports are evidently rotting away and allowing roof to settle, which, if not attended to at an early date, is liable to collapse and cause serious accident. Compiled.



#### FIFTH DISTRICT.

- No. 609—Agosta Milling Co. (Agosta), October 29, 1896—Provide substantial hand railings on all stairways, including a stairway leading to basement. Complied.
- No. 610—J. M. Blue & Co. (Anna), October 26, 1896—Provide a new and substantial cover for well-hole located near boiler-room. Compiled.
- No. 611—Lewis Kaw (Anna), October 26, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 618—W. J. Ross & Co. (Ansonia), October 8, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 616—Arcanum Milling Co. (Arcanum), October 6, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 619—Mellinger & Roser (Arcanum), October 6, 1896—Provide suitable closet facilities for the use of employes. Complied.
- No. 622—Trump & Frees (Arcanum), October 6, 1896—Provide substantial hand-railings on stairways. Complied.
- No, 627—Beery & Raudabaugh (Celina), October 8, 1896—Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 628-Estry & Stephenson (Celin 1), October 13, 1896-Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 629—Hole & Fanger (Celina), October 8, 1896—Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 683—G. C. Wieser (Coldwater), October 14, 1896—Provide substantial hand-railings on all stairways Complied.
- No. 636—J. W. Long (Fort Recovery), October 14, 1896—Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 637—Remarkius & Lauk (Fort Recovery), October 14, 1896—Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 638—J. J. Hone (Green Camp), October 29, 1896—Provide substantial hand-railings on stairs and around stair-openings. Complied.
- No. 645—Kuntz & Wright (Greenville), October 6, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 646—C. O. Lucas (Greenville), October 6, 1896.—Provide substantial hand-railings on stairways leading to second floor. Complied.
- No. 648—Winn Rasser (Greenville), October 13, 1896.—Provide substantial hand-railings on stair ways. Complied.
- No. 655—Darmody & McClure (Marion), October 14, 1896.—Provide substantial hand-raidings on stairways. Complied.
- No. 672—Watkins Brothers (Prospect), October 29, 1896.—Remove material of every description from second floor as joists are badly burned and too weak to carry heavy load; also all loose plastering from ceiling on first floor, to prevent same falling on belts; repair wall on south side of building over double doors. Compiled.
- No. 678—Joseph Barrington (St. Mary's), October 14, 1896.—Provide substantial hand-railings on all stairways. Not reported as complied.
- No. 680—R. P. Gordon (St. Mary's), October 14, 1896.—Provide substantial hand-railings on all stairways not so provided. Not reported as complied.
- No. 682—St. Mary's Machine Co. (St. Mary's), October 14, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 684—St. Mary's Woolen Manufacturing Co. (St. Mary's), October 14, 1896—Provide a closet on first or basement floor for the exclusive use of female employes. Compiled.



- No. 686—American Steel Scraper Co. (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 687—J. N. Anderson (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 688—Buckeye Churn Co. (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways, Complied.
- No. 689—Donaldson & Bryant (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 690—George F. Genney (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 891-R. Given & Son (Sidney), October 25, 1896;—Provide substantial hand-railings on all stairways. Complied.
- No. 692—Sidney Carriage Body Co. (Sidney), October 28, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 694—Sidney School Furniture Co. (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways not so provided. Factory not in operation.
- No. 695—Slusser, McLean Scraper Co. (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 697—Philip Smith (Sidney), October 26, 1896.—Provide substantial hand-railings on all stair-ways. Complied.
- No. 698—Underwood Whip Co. (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 700—Wagner Manufacturing Co. (Sidney), October 25, 1895.—Provide substantial hand-railings on all stairways. Complied.
- No. 701—W. R. Wyman (Sidney), October 26, 1896.—Provide substantial hand-railings on all stairways not so provided. Not in operation.
- No. 704—Taylor Brothers (Sycamore), October 8, 1896.—Provide substantial hand-railings on all stairways and around all stair openings. Complied.
- No. 708—Koontz & Son (Union City), October 6, 1896.—Provide substantial hand-railings on all stairways; repair front wall over doorways at first and second stories. Not reported as complied.
- No. 709—G. A. Lambert (Union City), October 6, 1896.—Provide substantial hand-railings on al stairways not so provided. Complied.
- No. 710—Parent & Lambert (Union City), October 6, 1896—Provide new steps on stairway leading up to elevator. Not reported as complied.
- No. 711—Citizens' Electric Light and Power Co. (Upper Sandusky), October 8, 1896.—Provide efficient closet facilities for the use of employes. Complied.
- No. 715—F. Didier & Son (Versailies), October 8, 1896.—Provide substantial hand-railings on all stairways. Not reported as compiled.
- No. 717—Landman & Stock (Versailles), October 8, 1896.—Provide substantial hand-railings on all stairways. Not reported as compiled.
- No. 718—M. Brown & Co. (Wapakoneta), October 22. 1896.—Provide substantial hand-railings on stairway in office building. Complied.
- No. 720—Theodore Dickman (Wapakoneta). October 22, 1896.—Provide substantial hand-railings on all stairways. Complied.
- No. 722—Home Milling Co. (Wapakoneta), October 22, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 723—Kreitzer Buggy Co. (Wapakoneta), October 22, 1896.—Provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 728—Wapakoneta Wheel Co. (Wapakoneta), October 23, 1896.—Provide substantial hand-railings on inside stairway. Complied.



#### SIXTH DISTRICT.

- No. 780—Crook and Iddings (Augusta), August 14. 1896—Provide substantial hand-railings on stairway leading to boiler-room, also on stairs in main building leading from first floor to attic. Compiled.
- No. 781—W. G. Metzel (Augusta), August 14, 1896—Provide substantial hand-railings on stairways from first to third floors. Complied.
- No. 732—Cadiz Creamery Co. (Cadiz), November 24, 1896—Provide efficient closet facilities for the use of employes. Compiled.
- No. 733—Cadiz Electric Light and Power Co. (Cadiz), November 24, 1896—Provide efficient closet facilities for use of employes. Complied.
- No. 788-R. P. Scott (Cadiz), November 24, 1896—Provide separate toilet room, same to contain water-closet and all the necessary commodities, for the exclusive use of female employes in printing office. Complied.
- No. 748—Columbiana Pump and Machine Co. (Columbiana), March 25, 1896—Repair roof of foundry or replace it with new one, as roof is in very bad condition. Compiled.
- No. 754—Wm. Brunt Pottery Co. (East Liverpool). April 26, 1896—Provide safety device to catch elevator in case cable should break, would suggest double cables. Making arrangements to put in new elevator.
- No. 756—East Liverpool Pottery Co. (East Liverpool), April 25, 1896—Repair portion of west wal . of building. Compiled.
- No. 758—Globe Pottery Co. (East Liverpool), April 26, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 762—Knowles, Taylor & Anderson Co. (East Liverpool), April 29, 1896—Repair elevator gates and keep same in good working condition at all times. Complied.
- No. 769—C. C. Tompson Co. (East Liverpool), April 26, 1896—Provide automatic (self-closing) ele vator gate at elevator opening on second floor and put same in good working order. Complied.
- No. 781—Cherry Valley Iron Co. (Leetonia), February 10, 1896—Repair floor in engine-room.

  Complied.
- No. 789—Beaver Tin Plate Co. (Lisbon), February 20, 1896,—Provide better facilities in toilet room for females by substituting long trough for washing purposes in place of single wash-bowl. Compiled.
- No. 793-New Lisbon Woolen Manufacturing Co. (Lisbon), February 20, 1896—Repair floor where it is worn through in operating foom; strengthen joists by placing hard wood cleats under each end, securely fastened with screws to cross-beams. Compiled.
- No. 795—U. S. Fire Clay Co. (Lisbon), February 20, 1895—Provide safety device to catch elevator in case cable should break, would suggest double cables. Compiled.
- No. 799—Malvern Clay Co. ((Lisbon), August 7, 1896—Provide substantial hand-railing on lower portion of stairway in main building. Complied.
- No. 805—Millersburg Electric Light Co. (Millersburg), September 4, 1896--Provide efficient closet facilities for the use of employes. Compiled.
- No. 806-Millersburg Water Works (Millersburg), September 4, 1896-Provide efficient closet facilities for the use of employes. Compiled.
- No. 811—Samuel C. Scott (New Waterford), March 26, 1896—Provide substantial hand-railings on stairs and around stair openings. Complied.
- No. 823—Salem Church Organ Co. (Salem). April 16, 1896—Provide substantial hand-railings on rear stairways. Complied,
- No. 883—Cone Fire Clay Co (Salineville), February 26, 1896—Provide substantial hand-railing on outer edge of stairway leading to second floor. Compiled.



- No. 838—Standard Pottery Co. (Salineville), February 26, 1896—Provide substantial hand-railing on stairway leading to second floor. Complied.
- No. 839—McCartney & Bontrager (Sherodsville), September 3, 1896—Provide substantial handralling on outside stairway. Complied.

#### SEVENTH DISTRICT.

- No. 852—Phoenix Building Co. (Athens), September 24, 1896—Rebuild rear stairway as the present stairway is in bad condition. Complied.
- No. 858—Catherine R. Atkinson (Barnesville), July 10, 1896—Provide a dressing-room on inside of building on same floor where females are employed, and a water closet on outside of building, for their exclusive use. Compiled.
- No. 858—Bonnell, McKeever Milling Co. (Barnesville), July 10, 1896—Provide substantial handrailings on stairways from first to third floor. Complied.
- No. 861—Hague, Woodward & Co (Barnesville), July 10, 1896—Provide four ventilators, 2 x 4 feet, in roof, one near east and one near west end of building, one in center north and south and the other two at equal distance apart, ventilators to extend through roof to outside and to be constructed with canopy top. Factory closed.
- No. 870—Jerome Goodhart (Batesville), September 2, 1896—Provide a separate and distinct watercloset for the exclusive use of female employes. Complied.
- No. 871—F. Ketterer (Batesville), September 2, 1896—Provide substantial hand-railings on all inside stairways; suitable closet facilities for the use of employes; build brick flue starting from third floor. Complied.
- No. 875—Barnard Brick Co. (Bellaire), July 14, 1896—Provide substantial hand-railings on all stairways not having same. Compiled.
- No. 879 Jacob Boneysteele (Bellaire), July 14. 1896—Provide substantial hand-railings on all stairways not having same. Complied.
- No. 881-City Water Works (Bellaire), July 15, 1896-Repair outside walls and roof. Complied.
- No. 890—Stewart & Ward (Bellaire), July 15, 1896—Provide substantial railing around stair opening on second floor. Complied.
- No. 891—Wise & Johnson (Bellaire), July 15, 1896—Provide substantial hand-railing on stairs and around stair opening. Complied.
- No. 892-Mrs. C. Combs (Bethesda), August 13, 1896-Provide a separate water-closet for the use of female employes. Complied.
- No. 894—Hunt & McFadden (Bethesda), August 13, 1896—Provide suitable closet-facilities for the use of male employes and keep same in good sanitary condition. Complied.
- No. 895—Hunt & Palmer (Bethesda), August 18, 1896—Provide an outside stairway at door at west end of factory from second floor to the ground, if door is to be used, and place a substantial hand-railing on each side from top to bottom. Discontinued use of rear door
- No. 899—Ætna Standard Iron and Steel Co. (Bridgeport), July 31, 1896—Provide substantial handrailing around platform in blacksmith shop. Complied.
- No. 900—A. J. Baggs (Bridgeport), July 31, 1896—Provide substantial hand-railings on all stairways repair first floor; provide suitable closet facilities for the use of employes. Building vacated.
- No. 902—Bellaire, Bridgeport & Martins' Ferry Electric Co. (Bridgeport), July 31, 1896—Provide some means for heating the building during the fall and winter months. Complied.
- No. 904—C., L. & W. R. R. Co. (Bridgeport), July 31, 1896—Repair roof over round-house. Complied.
- No. 905—Smith & Son (Bridgeport). July 31, 1896—Provide substantial hand-railings on all stairways. Compiled.



- No. 907—Z. Z. & G. T. Courtwright (Caldwell), September 2, 1896—Provide a substantial railing around elevator opening at second and third floors. Compiled,
- No 908—C. J. Jenne (Caldwell), September 2, 1896—Provide substantial hand-railing on stairway and around stair opening. Complied.
- No. 909—S. Mills & Sons (Caldwell), September 2, 1896—Provide substantial hand-railing on stairway leading to basement. Compiled.
- No. 911—T. J. Balely (Chester Hill), October 7, 1896—Provide substantial hand-railing on stairs leading to basement and around stair opening. Compiled.
- N9. 915—C. L. Oblinger (Lewisville), August 26, 1896—Provide substantial hand-railings on outside stairway. Compiled.
- No. 922-W. P. Sprague (McConnelsville), September 23, 1896—Provide water-closet for the exclusive use of female employes: also suitable closet facilities for the use of male employes. Not reported as complied.
- No. 935—City of Martins' Ferry (Martins Ferry), July 31, 1896—Provide suitable closet facilities for the use of employes. Complied.
- No. 936—John Flading (Martins Ferry), July 31, 1896—Provide substantial hand-railing around stair opening in basement. Complied.
- No. 944—Spence, Baggs & Co. (Martins Ferry), July 31, 1896—Provide substantial hand-railings on stairways from first to second floor. Compiled.
- No 947—Wilson Brothers (Martins Ferry), July 31. 1896—Provide a seperate and distinct watercloset for the exclusive use of female employes. Complied.
- No. 949—L. Murdaugh (St. Clairsville), August 13, 1896—Provide substantial hand-railing around head of stairs leading to basement, also on outside stairway and railing along opening on north side of third floor. Complied.
- No. 952—Conrad Troll Sons (St. Clairsville) August 13, 1896—Repair and thoroughly cleanse and disinfect water-closet and keep same in good sanitary condition at all times. Complied.
- No. 959—F. J. Filler (Triadelphia) October 13, 1896—Provide substantial hand-railings on stairways. Complied.
- No. 962—George Richner (Woodsfield). August 26, 1896—Provide substantial hand-railings on all stairways not having same. Complied.

# EIGHTH DISTRICT.

- No. 974-M. D. Bradley (Columbus), March 4, 1896-Provide a substantial hand-railing on stairs leading to basement and repair roof around sky-light where it leaks. Compiled.
- No. 992—Columbus Coffin Co. (Columbus), March 4, 1896—Provide substantial hand-railings on all stairways; automatic (self-closing) elevator gates at elevator openings on each floor in south building. Complied.
- No. 994—Columbus Electric Machine Works (Columbus), March 19, 1896—Provide suitable closet facilities for the use of employes. Complied.
- No. 1007—Door, Sash and Lumber Co. (Columbus), February 17, 1896—Provide substantial handrailings on all stairways not so provided. Compiled.
- No. 1026—Halm & Todd (Columbus), March 19, 1896—Provide substantial hand-railings on stairs and erect flight of stairs in wost end of building either inside or outside; if you desire to locate stairs on outside, place the upper landing at first window south of elevator run stairs down on shed roof and another flight of stairs from shed roof to ground, stairs to be made seven-inch rise and ten-inch tread if room will allow. Compiled.
- No. 1029 Hardesty Brothers (Columbus), April 14, 1896—Provide substantial hand-railings on stairs; change door at foot of stairs to open outward. Compiled.



- No. 1038—P. Hayden Saddlery Hardware Co. (Columbus), April 14, 1896—Provide automatic (seif-closing) elevator gates at elevator openings on each floor; case in sides of small elevator at least one foot high to prevent any thing from falling down shaft. Complied.
- No. 1045—G. C. Hoover (Columbus), April 14, 1896—Repair sky-light where it leaks. Not reported as compiled.
- No. 1046—G. C. Hoover (Columbus), April 14, 1896—Remove portion of partition wall on second floor, wall to come out from partition wall running north and south to the east side of door, opening to correspond to the opening on first floor; place a girder similar to the one on first floor beneath joists to support same; portion of wall ordered removed is in a dangerous condition and is liable to fall; provide a flight of stairs to second floor and a new rope for elevator. Compiled.
- No. 1048—G. C. Hoover (Columbus). April 14, 1896—Remove oils, gasolines and other combustible material, owned by Messrs, Welsh and Son, from under stairway leading to tailor-shop. Tailor shop moved out. Not under jurisdiction of department.
- No. 1049—Gilbert Hoover (Columbus), June 3, 1896—Tear down old stairs and platform leading to J. H. Schorr and H. Knipfer's shops and provide new platform and stairs, stairs to be made of two inch lumber, dressed on one side, risers to be seven-eighths inch lumber and to be not less than three feet wide, securely anchored to the wall and supported by columns, horses and stairs to be made of 2x12: present stairway is in a bad condition and order should receive your prompt attention; thoroughly cleanse and disinfect water-closet used by F. E. Powell and keep same in a good sanitary condition. Compiled.
- No. 1058—Jones Fence Co. (Columbus), March 4, 1895—Provide substantial hand-railings on stairs leading to basement. Complied.
- No. 1069—Thomas Lewis & Son (Columbus), July 9, 1896—Provide substantial railing around landing of back stairway. Compiled.
- No. 1081—Frederic Martin (Columbus), October 26, 1896—Support the second floor joists with girders and columns or hog chains. Complied.
- No. 1112—Reinhart Brothers (Columbus). August 13, 1896—Provide automatic (self-closing) elevator gates at elevator openings on first and third floors; repair plumbing in water-closet on second floor so bowls can be properly flushed, and keep same in good sanitary condition at all times. Partially compiled.
- No. 1118-R. R. Rickley (Columbus), August 13, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Not reported as complied.
- No. 1123—G. Schreyer (Columbus), July 9, 1\*96—Provide toilet and dressing-room and watercloset for the exclusive use of female employes of the different firms occupying your building. Complied.
- No. 1125—Scioto Buggy Co. (Columbus), March 4, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor; substantial hand-railings on all stairways; anchor stairs to wall to make them rigid; |would suggest that you case stairs in with door at lower landing of each, door to open outward. Compiled.
- No. 1127—Lewis Siebert (Columbus), August 7, 1896—Provide three windows in south side of basement, about 23 feet from southwest corner, one about 34 feet and one about 60 feet to give better light and ventilation in basement. Not reported as compiled.
- No. 1185—U. S. Carriage Co. (Columbus), March 19, 1896—Provide substantial hand-railings on all stairways not so provided: reserve water-closet on same floor where females are employed for their exclusive use; provide better means of egress from building located at corner Lazelle and Noble streets, by erecting a fire-escape on the Lazelle street or west end of building, balconies at each floor to take in the second double window from south corner-and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground, fire-escape to be constructed in accordance with plans and specifications furnished by the department. Complied.



#### NINTH DISTRICT.

- No. 1181—Sophia C. Balsley (Dayton), July 14, 1896—Provide substantial hand-railings on all stairways not having same. Complied.
- No. 1188—E. J. Barney (Dayton), November 20, 1896—Provide a stairway from third to second floor to connect with stairway from second to first floors in south end of building and place substantial hand-railings on same. Compiled.
- No. 1190—O. W. & L. E. Bauman (Dayton), November 26, 1896—Provide substantial hand-railing on all stairways not so provided. Compiled.
- No. 1191—Fred Beaver (Dayton), November 12, 1896—Provide substantial hand-railings on stairway from second to third floor. Compiled.
- No. 1194—Mrs. M. E. S. Bickham (Dayton), November 12, 1896—Provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1196—O. L. Bouck Co. (Dayton), July 31, 1896—Change doors at head of stairways to open outward. Complied.
- No. 1201—S. N. Brown & Co. (Dayton), July 22, 1896—Remove the old stairway leading from first to third moor and replace same with new one. Compiled.
- No. 1202—Brownell Co. (Dayton), September 3, 1896—Provide a safety gate in doorway leading to elevator on second floor. Compiled.
- No. 1204—J. W. & E. Buvinger (Dayton), July 22, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 1205—W. P. Callinan (Dayton), September 3, 1896—Provide substantial hand-railings on all stairways not having same. Complied.
- No. 1206—W. P. Callinan (Dayton), December 3, 1896—Provide a toilet and dressing-room and water-closet on second floor for exclusive use of female employes. Complied.
- No. 1212—M. Costello (Dayton). December 2, 1896—Provide substantial hand-railings on all stair ways not so provided; repair elevator and put same in good working order; provide automatic (self.closing) elevator gates at elevator openings on each floor. Compiled.
- No. 1215- Robert G. Corwin (Dayton), November 20, 1896-Provide water-closet on second floor for exclusive use of female employes; substantial hand-railings on all stairways not so provided; order relating to closets held in abeyance on account of changing females to other floors. Portion of order relative to hand-railing compiled.
- No. 1219—C. W. Darst, (Dayton), August 27, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1221—Davis Sewing Machine Co. (Dayton), September 22, 1893—Remove old cables from two elevators in south wing of building and replace with new ones; keep elevators in good working condition at all times. Complied.
- No. 1222—Dayton Brewing Co. (Dayton), August 13, 1896—Provide new cable for elevator, as the one now in use is worn out. Complied.
- No. 1226—Dayton Globe Iron Works (Dayton', August 13, 1896—Provide substantial hand-railing on stairs leading to pattern shop. Complied.
- No. 1229—Dayton Paper Novelty Co. (Dayton), December 3, 1896—Provide substantial hand-rail ings on all stairways not so provided. Complied.
- No. 1235—Dodds & Hawes (Dayton), December 3, 1893—Provide water-closets for exclusive use of female employes of Messrs. D. L. Bates & Bro.; place substantial hand-railings on all stairways in building not so provided. Complied.
- No. 1237—Durst Milling Co. (Dayton), August 13, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1238—Miss Belle Eaker (Dayton), November 20, 1896—Repair cylinder of elevator, which i leaking badly, causing power to be lost and cab to drop from floor, provide substantial hand-railings on stairways from top to bottom. Complied.



- No. 1241—Wm. Frock & Sons, (Dayton) September 3, 1896—Provide substantial hand-railings on all inside stairways not having same. Complied.
- No 1243—Gebhart Estate, (Dayton), December 3, 1896—Place substantial hand-railings on stairways leading from second to third and from third to fourth floors. Compiled.
- No. 1248—Simon Gebhart Sons Co. (Dayton), August 27, 1896—Remove old steps leading to basement and provide new; place substantial hand-railings on all stairways. Not reported as complied.
- No. 1253—German News Paper Co. (Dayton), December 3, 1896—Extend roof so as to cover entire walk to closet set aside for females. Complied.
- No. 1257—J. H. Gorman (Dayton), December 3, 1896—Provide substantial hand-railings for rear stairway leading from first floor to printing office. Compiled.
- No. 1261--John Harries (Dayton), November 20, 1896--Provide substantial hand-railings on all stairways from top to bottom. Complied.
- No. 1263—Hayner Distilling Co. (Dayton), September 22, 1896—Provide substantial hand-railings on stairway in rear of building. Compiled.
- No. 1264.—George W. Heathman (Dayton), November 20, 1896.—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1266—Herald Publishing Co. (Dayton), November 20, 1896 -Provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1270—Dr. H. S. Jennett (Dayton), November 20, 1896—Provide substantial hand-railings on rear stairway. Complied.
- No. 1271 -Joyce Cridlard Co. (Dayton), November 12, 1896--Provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1278--L. W. Keyer (Dayton), November 25, 1896-Place substantial hand-railings on front stairway from first to second floors. Compiled.
- No. 1274--Wm. Kinnard (Dayton), August 27, 1896--Remove old cable from elevator and replace with new one; repair automatic gates and put in good working condition. Complied.
- No. 1276—John Klee (Dayton), November 25, 1896—Provide better means of egress from building by placing fire-escape on north side, balcony at fifth floor to take in large circular window; balconies at each floor below to be of sufficient length to accommodate an eight-inch rise and eight-inch tread stairway between, and from first balcony above the ground a flight of stairs to come down to within ten feet of pavement; on west side of building provide a fire-escape, balcony at top floor to take in the seventh and eighth windows, and balconies at each floor below to be of sufficient length to admit of an eight-inch rise and eight-inch tread stairway between, and from first balcony above the ground a flight of stairs to come down to within ter feet of pavement, escapes to be constructed in accordance with specifications furnished by this department. Compiled.
- No. 1278—Kratochwill Milling Co. (Dayton), November 12, 1896—Provide-substantial hand-railings on all stairways. Complied.
- No. 1280—J. L. Layman, (Dayton) November 21, 1896—Provide substantial hand-railings on all stairways. Compiled.
- No. 1287—N. C. Mahrt Co. (Dayton), July 14, 1896—Provide substantial hand-railings on all stair—ways not having same. Complied.
- No. 1289—A. C. Marshall Estate (Dayton), December 2, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor, in portion of building occupied by Dayton Fruit Tree Label Co. Not reported as complied.
- No. 1290—A. C. Marshall Estate (Dayton), December 2, 1896—Line up main shafting on lower floor and put same in good working order in portion of building occupied by Buckeye Fence Co. Not reported as complied.



- No. 1292—Marshall & Gorman (Dayton), November 20. 1896—Provide new cable for elevator; substantial hand-railings on all stairways. Not reported as complied.
- No. 1294—Mead Paper Co. (Dayton), November 12, 1896—Provide substantial hand-railings on all stairways not so provided; repair floor throughout your building where worn out; take out loose bricks over top of north and south doors in basement and put in substantial lintels over doors; point up brick-work where it is water-washed and cracks appear; repair down spouting at both front corners, as same leaks at present, and is injuring the brick-work. Complied.
- No. 1295—Mead Paper Co. (Dayton), November 12, 1896—Provide new steps for stairway from second to third floor; substantial hand-railings on all stairways not so provided; repair floor in grinding-room and around paper mill machinery; provide a toilet and dressing room and water-closet on each floor where females are employed for the exclusive use of female employes. Compiled.
- No. 1297—National Cash Register Co. (Dayton), November 25, 1896—Place substantial hand-railing on stairway in brass-room. Complied
- No. 1302—M. Ohmers Sons (Dayton). November 21, 1896—Provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1806—Charles Parrott (Dayton), November 12, 1896—Provide a new cable for elevator. Complied.
- No. 1307—Peirce estate (Dayton) July 31, 1896—Provide new cable for elevator; supply new treads for stairway in place of the old ones which are worn out. Complied.
- No. 1809—H. L. Pope & Co. (Dayton), August 27, 1896—Provide a trap door over water at head-gate south of boiler-room. Compiled.
- No. 1311—F. A. Requarth Co. (Dayton), July 22, 1893—Provide substantial hand-railings on all stair-ways not having same. Complied.
- No. 1312—J. R. Reynolds (Dayton), December 3, 1896—Remove old treads from stairways leading from blacksmith shop to paint shop and replace with new ones; place substantial hand-railings on both stairways. Compiled.
- No. 1814—John Rouser Co. (Dayton), July 14, 1896—Provide new cable for elevator; substantial hand-railings on all stairways not having same. Complied.
- No. 1326—M. J. Schaefer (Dayton), April 21, 1896—Provide automatic (self-closing) elevator gates at elevator openings on first and second floors; a fence seven feet high in front of closet used by female employes, to make closet more exclusive, as explained to Mr. M. J. Schaefer. Not reported as complied.
- No. 1331—John Stengle Co. (Dayton), November 25, 1896—Provide substantial hand-railings on all stairways in front building not so provided. Complied.
- No. 1332—Jacob Stickie (Dayton), November 25, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 1885—Stoddard Manufacturing Co. (Dayton), July 31, 1896—Repair elevator and put in good working condition. Compiled.
- No. 1836—Terry & Porterfield Tobacco Co. (Dayton), November 12, 1896—Provide substantial handrailings on all stairways. Not reported as complied.
- No. 1340—W. R. Wallaston (Dayton), November 26, 1896—Provide substantial hand-railing on stairway leading from second to third floor. Complied.
- No. 1844—J. P. Wolf (Dayton). November 12, 1896—Provide a water-closet on second floor in portion of building used by laundry, for the exclusive use of female employes. Laundry moved out.
- No. 1251—Franklin Flour and Feed Co. (Franklin), February 18, 1896—Provide substantial hand railings on all stairways not so provided. Not reported as complied.
- No. 1852—Franklin Paper Co. (Franklin), February 18, 1896—Provide automatic (self-closing) elevator gates at elevator openings in beater-room. Not reported as complied.
- No. 1853—Harding Paper Co. (Franklin), February 18, 1896—Provide substantial hand-railings on all stairways not so provided in paper mill. Complied.



- No. 1354—Harding Paper Co. (Franklin), February 18, 1896—Provide substantial hand-railings on all stairways; repair elevator gate on first floor and put in good working order in ragsorting department. Compiled.
- No. 1355—John Kaiser (Franklin), February 18, 1896—Provide substantial hand-railings on all stairways, automatic (self-closing) elevator gate at elevator opening on first floor; a fence seven feet high, between closet used by females and Fifth street, as explained by the inspector. Compiled.
- No. 1356—Perrine Paper Co. (Franklin), February 18, 1896—Provide automatic (self closing) elevator gates at elevator openings in beater-room. Complied.
- No. 1857—John Bender (Hamilton), January 27, 1896—Provide water-closet for the exclusive use of female employes of J. D. Haney. Building vacated.
- No. 1268—J. F. Bender Bros. Co. (Hamilton), January 27, 1896—Provide safety device to catch elevator in case cable should break, would suggest double cables; automatic (self-closing) attachments for elevator gates. Compiled.
- No. 1360—Black & Clawson Co. (Hamilton), December 2, 1895—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 1862—P. Burns & Co. (Hamilton), December 14, 1895—Provide substantial hand-railings on stairways. Complied.
- No. 1368—Carr & Brown Co. (Hamilton) December 27, 1895—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1869—L. Deinzer (Hamilton), December 27, 1895—Provide substantial hand-railings on stairways.

  Compiled.
- No. 1371—Wm. M. Dingfelder, January 4, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1872—W. F. Doepke (Hamilton), December 27, 1895—Provide substantial hand-railings on stairways and around stair openings. Compiled.
- No. 1374—Henry Frechlinger, Jr. (Hamilton), December 27, 1895—Provide water-closet on second floor for the exclusive use of female employes. Building vacated.
- No 1381—Macneale & Urban Co. (Hamilton), December 26, 1895—Provide better means of egress from building by erecting fire-escapes on the east end, balconies at each floor to take in the first and second windows from northeast corner and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the balcony above the ground a flight of stairs to come down to within ten feet of the ground fire-escape to be constructed strictly in accordance with the plans and specifications furnished by this department; provide automatic (self-closing) elevator gates at elevator openings on each floor. Partially complied.
- No. 1882—Fred Mencke (Hamilton), December 14, 1895—Provide substantial hand-railings on stairways. Complied.
- No. 1385 H. L. Morey (Hamilton), December 14, 1395—Provide substantial hand-railings on back stairs of building occupied by P. D. Crull. Not reported as complied.
- No. 1886—H. L. Morey (Hamilton). December 14, 1895.—Provide a toilet and dressing-room and water-closet on the third floor for the exclusive use of female employes employed by the Germania Publishing Co. Not reported as complied.
- No. 1887—H. L. Morey (Hamilton). December 14, 1895—Provide friction clutches for each depart ment, so that machinery can be controlled by each without interfering with the other. Not reported as compiled.
- No 1888 -H. L. Morey (Hamilton), December 14, 1895—Provide substantial hand-railing on stairway leading from first to second floor in building occupied by Brown & Whitaker, Not reported as compiled.
- No. 1390—Fred J. Myers Manufacturing Co. (Hamilton), December 2, 1895—Provide automatic attachments to elevator gates and automatic (self-closing) elevator gates at elevator opening on first floor; keep passageway leading to stairway open and free of obstructions: provide a partition to obstruct the view of closet used by female employes. Not reported as compiled.



- No. 1395—Frank Schantz (Hamilton), December 27, 1895—Provide substantial hand-railings on all stairways and automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 1396—Semler & Co. (Hamilton), December 27, 1895—Provide substantial hand-railings on all stairways. Complied.
- No. 1398—Lewis Snyder Sons Co. (Hamilton), December 14, 1395—Provide a trap door at elevator in finishing-room; substantial hand-railings on stairway leading to basement. Compiled.
- No. 1399—Lewis Snyder Sons Co. (Hamilton), December 2, 1895—Provide substantial hand-railings on stairways; a ventilator with a disc fan to draw away steam, etc., from dryer. Complied.
- No. 1400—Sohnger Malting Co. (Hamilton), December 27, 1895—Provide substantial hand-railings on stairways. Not reported as complied.
- No. 1401—J. A. Sommers Manufacturing Co. (Hamilton), December 27, 1895—Provide substantial hand-railings on stairways leading from second to third floors. Complied.
- No. 1404—Wm. Caldwell (Middletown), February 17, 1896—Provide substantial hand-railings on the wall side of all stairways. Complied.
- No. 1405—C., C., C. & St. L. R. R. Co. (Middletown), February 17, 1896—Provide a tollet and dressingroom and water-closet for the exclusive use of female employes. Not reported as complied.
- No. 1407—Corson Estate (Middletown), February 17, 1896—Provide a toilet and dressing-room and water-closet for the exclusive use of female employes of the Excelsior Laundry. Not reported as compiled.
- No. 1408—Jacoby Paper Co. (Middletown), February 7, 1896—Provide automatic (self-closing) elevator gates at elevator opening on first floor. Complied.
- No. 1410—Miami Cycle and Manufacturing Co. (Middletown), December 2, 1895—Provide automatic (self-closing) elevator gates at elevator openings on each floor; a continuous stairway from top to bottom in new building. Compiled.
- No. 1411—Miami Cycle and Manufacturing Co. (Middletown), February 7, 1896—Provide automatic (self-closing) elevator gates or trap doors at elevator openings on each floor. Complied.
- No. 1414—Middletown Machine Co. (Middletown), February 7, 1896—Provide safety device to catch elevator in case cable should break, would suggest double cables; automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 1417—W. B. Oglesby Paper Co. (Middletown), February 7, 1896—Provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1422—P. J. Sorg (Middletown), February 17, 1896—Provide a toilet and dressing-room and water-closet for the exclusive use of female employes of Mitchell Bros.; substantial hand-railing on stairway leading to basement. Complied.
- No. 1428—P. J. Sorg (Middletown), February 17, 1896—Provide toilet and dressing-room and water-closet for the exclusive use of female employes of the Signal Printing Co; thoroughly cleanse and disinfect water-closet in basement and keep same in good sanitary condition at all times; a substantial hand-railing on stairway leading to basement. Compiled.
- No. 1424—W. H. Todhunter (Middletown), February 7, 1896—Provide safety device to catch elevator in case cable should break, would suggest double cables; automatic (self-closing) elevator gates at elevator openings at first and second floors. Complied.
- No. 1425—Tytus-Gardner Paper Co. (Middletown). January 28, 1896—Provide substantial hand-railings on all stairways not so provided in Tytus mill. Complied.
- No. 1429—Wilson & McCallay (Middletown), February 17, 1896—Provide a separate toilet and dressing-room and water-closet for the exclusive use of female employes in the employ of Cullman Brothers; efficient safety clutch for elevator and automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
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- No. 1480—Wilson & McCallay Tobacco Co. (Middletown), February 17, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1421—Wrenn Paper Co. (Middletown), January 28, 1896—Provide substantial hand-railings on stairs leading to gang way for oiling line shafting. Compiled.
- No. 1432—Young & Warren (Piqua), April 21, 1896—Provide suitable closet facilities for the use of male employes, also a separate and distinct closet for the use of female employes of the Piqua Daily Leader. Not reported as compiled.
- No. 1436—Irwin Auger Bit Co. (Wilmington), March 3, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 1446—Xenia Shoe Manufacturing Co. (Xenia). March 177, 1896—Provide substantial hand-railings on stairways and repair and put in good working condition elevator gates on second floor. Not reported as complied.

#### TENTH DISTRICT.

- No. 1450—M. Archer (Cincinnati), April 17, 1896—Provide substantial hand-railings on all stairways and repair roof where it leaks. Not reported as compiled.
- No. 1455—Bare Estate (Cincinnati), May 5, 1895—Provide better means of egress from building by erecting a fire-escape on the south side of building, balconies at each floor to take in the first two windows from west corner and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down within ten feet of the ground, fire-escape to be constructed in accordance with specifications furnished by the department; provide substantial hand-railings on all stairways not so provided. Receiving bids on escape at last report of Inspector.
- No. 1468—Buckeye Foundry Co. (Cincinnati), July 31, 1896.-Provide substantial hand-railings or. all stairways. Complied.
- No. 1469—Buckeye Foundry Co. (Cincinnati), July 31, 1896—Provide substantial hand-railings on all stairways. Complied.
- No. 1474—Wealey Cameron Estate (Cincinnati), March 3 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1487—Mrs. Jennie W. Coppock (Cincinnati), January 7, 1896—Provide substantial hand-railings on all stairways that are not already provided with same; change door at foot of stairs at second floor to open outward; provide automatic (self-closing) elevator gates at elevator openings on each floor; arrange elevator so that platform will run even with first floor, you can do this by altering check ball, cutting out a little of the cross-beam and small portion of brick wall; provide a closet on the first floor for naic employes; reserve closet on second floor for the exclusive use of female employes. Portion of order relating to elevators compiled.
- No. 1508—Thomas Emery Sons (Cincinnati), March 30, 1896—Provide proper closet facilities on the fifth floor of 217 Race sreet for the use of male employes. Not reported as complied.
- No. 1512—Favorite Carriage Co. (Cincinnati), August 18, 1896—Repair tanks in water-closet on second floor and in basement so that closets can be flushed at all times. Complied.
- No. 1514—James Fey (Cincinnati), October 30, 1896—Provide substantial hand-railings on all stairways not so provided in portion of building occupied by Cincinnati Wood Ornamental Works, and substantial hand-railings on all stairways not so provided in portion of building occupied by Herman Lohaus. Not reported asscomplied.
- No. 1517—Frank Estate (Cincinnati), October 30, 1896—Provide a toilet and dressing-room and water-closet in southeast corner of first floor of store-room, for the exclusive use of female employes. Compiled.
- No. 1527—R. S. Gaff (Cincinnati), September 28, 1896—Provide substantial hand-railings on all stairways. Complied



- No. 1531—Bruce Gomersall (Cincinnati), January 25, 1896—Provide a water-closet on the fourth floor for the exclusive use of female employes, as per the law for the preservation of the health of female employes in the state. Not reported as compiled.
- No. 1538—Greiner Estate (Cincinnati), September 28, 1896—Provide substantial hand-railing on stairway from second to third floor. Complied.
- No. 1545—Henry Hoffeld (Cincinnati), December 3, 1895—Case up the back of stairs leading from second to third floor in rear building; provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1549—P. P. Hunter (Cincinnati), April 17, 1896—Repair brick archway over elevator doors at second and third floor as they are badly cracked. Compiled.
- No. 1556—Lane & Bodley Co. (Cincinnati), February 24, 1896—Provide new steps for stairs leading from first to second floor in frame yard shop, also easing or railing around opening of said stairs; provide new steps in the stairs in the south end of machine shop, John street front; also new treads for narrow steps leading from third to fourth floor in the corner room; open up stairway in the south end of John street building leading from second to third floors; provide substantial hand-railings on all stairways not so provided. Compiled.
- No. 1556—Mrs. Catherine Leeker (Cincinnati), December 5, 1895—Provide substantial hand-railings on all stairways. Complied.
- No. 1560—Longworth Estate (Cincinnati), February 10, 1896—Provide substantial hand-railings on stair ways leading from first to second and from third to fourth floors. Complied.
- No. 1562—Susan W. Longworth (Cincinnati), January 7, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor; substantial hand-railings on all stairways not so provided. Building vacated.
- No. 1570—Mrs. Mary Marks—Jas. G. Cooper, agt. (Cincinnati), January 7, 1896—Provide better means of egress from building by erecting a fire-escape on the south end of building, balcony, at each floor to take in two middle windows, and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground, escape to be constructed in accordance with the specifications mailed under separate cover. Complied.
- No. 1573—William Meyer (Cincinnati), March 3, 1896—Cover or countersink all projecting setscrews in collars on shafting belonging to you in portion of building occupied by Miller, Kohlhapp & Giese. Compiled.
- No. 1574—William Meyer (Cincinnati), March 3, 1896—Cover or countersink all projecting setscrews in collars on shafting belonging to you in portion of building occupied by Gregson, Robson & Co. Compiled.
- No. 1875—William Meyer (Cincinnati), March 3, 1896—Cover or countersink all projecting setscrews in collars on shafting; case in all exposed belts operating through the floor in portion of building occupied by Geo. J. Schoeppel. Complied.
- No. 1889—L. Newberger & Bro. (Cincinnati), December 18, 1895—Provide two water-closets on fourth floor, one for the use of male employes, and set aside one for the exclusive use of female employes. Complied.
- No. 1590—Adolph Nickel (Cincipnati), September 24, 1896—Provide substantial hand-railings on all stairways. Not reported as complied.
- No, 1591—A. Joseph Nurre (Cincinnati), May 21, 1895—Provide better means of egress from building by erecting fire-escape on the east side, balconies at each floor to take in first and second windows from south corner, same to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at second floor a flight of stairs to come down to within ten feet of the ground, escape to be constructed in accordance with specifications turnished by this department; provide automatic (self-closing) elevator gates at elevator openings at third, fourth and fifth floors. Not reported as complied.
- No. 1595—Joseph Pletzer (Cincinnati), September 24, 1895—Provide substantial hand-railings on stairway from second to third floor; a water-closet on third floor for the exclusive use of female employes. Partially complied.



- No. 1597—Mrs. Daniel Pratt (Cincinnati), September 8, 1896—Repair roof as it leaks badly. Complied.
- No. 1617—C. Schoemaker (Cincinnati), December 19, 1895—Set aside closet on fourth floor for the exclusive use of female employes; provide water-closet in basement for the use of male employes. Complied.
- No. 1619—William H. Schoemacher (Cincinnati), May 6, 1896—Provide new cable for elevator; new treads for stairs from first to third floor. Building vacated.
- No. 1621—W. W. Scrabaugh Estate (Cincinnati), May 6, 1896—Provide substantial hand-railings on stairways leading from second to fourth floors. Not reported as complied.
- No. 1622—Lewis Seasongood (Cincinnati), March 3, 1896—Provide substantial hand-railings on all stairways not so provided. Further time granted for compliance.
- No. 1635—Specialty Carriage Co. (Cincinnati), June 11, 1896—Repair or take out the archways at elevator openings on third, fourth and fifth floors at west end of west building, and repair or take out all archways at east and west ends of the three buildings, and if archways are taken out iron lintels should be put in. Complied.
- No. 1636—Dr. T. R. Spence (Cincinnati). March 30, 1896—Provide a water-closet on third floor in connection with the dressing-room, for the exclusive use of female employes; provide substantial hand-railings on stairway from second to fourth floor. Partially complied.
- No. 1639—Standard Wagon Co., (Cincinnati), August 13, 1896—Provide substantial hand-railing on inside stairway. Complied.
- No. 1640—M. A. Stark (Cincinnati), April 18, 1896—Provide substantial hand-railing on inside stair-way, also on outside stairway leading from second to third floor. Not reported as complied.
- No. 1642—L. Steigart (Cincinnati), July 31, 1896—Provide a toilet and dressing-room and watercloset on first floor or in front basement, for the exclusive use of female employes. Under construction.
- No. 1648—B. Stern (Cincinnati), September 24, 1896—Provide substantial hand-railing on stairway from first to second floor; better means of egress from building by erecting fire-escape on south side, balcony at third floor to take in first and second windows from east corner, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, escape to be constructed in accordance with the specifications furnished by this department. Compiled.
- No. 1647—Marie L. Storer Estate (Cincinnati), September 8, 1896—Provide a water-closet on the fourth floor for the exclusive use of female employes. Complied.
- No. 1648—Marie L. Storer Estate (Cincinnati), January 27, 1896—Thoroughly overhaul elevator and put in good working order, so that it will not move away from floors of its own accord. Compiled.
- No. 1649 George Storey (Cincinnati), March 10, 1896—Provide substantial hand-railings on all stairways; better means of egress from building by erecting fire-escape on the south end of building, balconies at each floor to take in the first and second windows from Ludlow street, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground, fire-escape to be constructed in accordance with the specifications mailed under separate cover. Complied.
- No. 1656—Walker White Lead Co. (Cincinnati), April 17, 1896—Provide substantial hand-railings on stairway leading from first to sec.) nd floor. Not reported as complied.
- No. 1667—Wiggins Estate (Cincinnati), July 6, 1896—Provide substantial hand-railings on the upper half of all stairways so as to make railing continuous from top to bottom. Complied.
- No. 1674—James Campbell (Harrison), July 6, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1675—William Rupp (Harrison), July 6, 1896—Provide substantial hand-railings on all stairways not so provided. Complied.
- No. 1679—F. G. Liemann (Norwood), September 8, 1896—Provide substantial hand-railings on all stairways. Complied.



# ELEVENTH DISTRICT.

- No. 1667—S. L. Martin (Greenfield), October 7, 1896—Provide substantial railing around opening in second floor near scroll saw. Compiled.
- No. 1692—John M. Waddell (Greenfield), October 7, 1896—Provide automatic (self-closing) elevator gates at elevator openings at second and third floors. Compiled.
- No. 1697—M. F. Carrol (Hillsboro), September 4, 1896—Provide automatic (self-closing) elevator gates at elevator openings at second floor. Complied.
- No. 1703—J. W. Pence (Hillsboro), September 4, 1896—Provide a substantial railing around back stairway at second floor also round all openings in second floor. Complied.
- No. 1705—Bowen & Burke (Ironton), July 23, 1896—Provide substantial hand-railing around stair opening on second moor. Complied.
- No. 1706—John W. Carrell (Ironton), August 14, 1896—Provide substantial hand-railing around stair opening at second floor. Compiled.
- No. 1717—Ft. Wayne Electric Co. (Ironton), July 23, 1896—Provide substantial hand-railing around stair opening on third floor. Complied.
- No. 1721—Heela Iron and Mining Co. (Ironton), July 81, 1896—Provide automatic (self-closing) elevator gate at top of hoist house. Complied.
- No. 1727-J. F. Ketter & Sons (Ironton), July 23, 1896-Provide automatic (self-closing) elevator gates at elevator opening on second floor. Compiled.
- No. 1735—John Peters, Jr. (Ironton), July 31, 1896—Provide automatic (self-closing) elevator gate at top of hoist house; also safety devices to catch elevator in case cable should break, would suggest double cables. Complied.
- No. 1786—John Philips (Ironton), July 23, 1896—Provide automatic (self-closing) elevator gates at elevator openings on second and third floors; substantial hand-railing around stair opening on third floor. Compiled
- No. 1757—Farmers' National Bank (Portsmouth), March 9, 1896—Provide better means of egress from building by erecting a fire-escape, balcony at third floor to take in window in rear of building with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof below, fire-escape to be constructed in accordance with specifications mailed under separate cover. Compiled.
- No. 1760—W. A. Hutchins (Portsmouth), March 80, 1896—Provide substantial hand-railings on all stairways; a toilet and dressing room and water-closet on second floor for the exclusive use of female employes. Compiled.
- No. 1768—George B. Miller (Portsmouth), January 27, 1896—Provide substantial hand-railing on back stairs leading from third floor. Complied.
- No. 1778—Portsmouth Turn Shoe Co. (Portsmouth), January 27, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 1782—Leopold Wise (Portsmouth), February 8, 1896--Repair plastering of ceiling over second floor.' Compiled.
- No. 1784--L. D. York (Portsmouth), February 3, 1896--Provide automatic (self-closing) elevator gates at elevator openings on second floor. Complied.
- No. 1798—George A. Bell (Wheelersburg), July 15, 1896—Provide substantial railing around stair opening. Complied.
- No. 1804—Jacob Holschuh (Willow Wood), August 27, 1896--Provide substantial railing around stair opening on third floor. Complied.



BUILDINGS INSPECTED DURING FISCAL YEAR ENDING NOVEMBER 15, 1896. TABLE XIV-MERCANTILE

For order see corre- aponding number fol- lowing this table.			4.0	•	80255	<b>=</b>
Means of lighting.	Gas	Oil lamps	Gas modely	Gas. Electricity	Electricity	Hectricity
Means of heating.	Stoves	Btoves	Hot airSteam Steam and hot air	Stoves	Steam Stores	None
Construction.	8 story brick	1 story brick	8 story brick	4 story brick 4 story stone & brick	story brick	8 story brick
Location of building.	Coach street	Main street 1 story brick	5 Enclid avenue Euclid avenue and Prospect street	30 East Spring street	ate, (Houry Means, agt.).  H. & Frank Turner.	Water street.
Name of owner and city, town or village.	ATHENS. F. and A. M. (H. E. Diokason, sec'y.)	Fawcett, R. C	Beckenbach, R & Sons. Crow & Whitmarsh. Taylor, William Son & Co.	Schwenker, Charles M. Pugh, agt.)	Craine, C. Ford, A. Byte, (Houry Means, agt.). Munger, R. H., & Frank Turner. Warden, E. M.	KENT.  Water street.  Water street.  Water street.
Number.	<del>-</del>	o	83 4 TO	40	80528	**

	NITIME					
*	14 Hartzell & Beary Furnsce street	Furnace street				=
	Piqua.					
10	15 Young, Mesdames J., & Ada B. Warren	Ads B. Warren Main and Ash streets	S story brick	Stoves	Gas and electricity	23
	PORTSMOUTH.					
9	16 Davis, J. F.	Second street Escottletty B story brick Hot sirt Escotricity	8 story brick	Hot air.	Electricity	91

# MERCANTILE BUILDINGS.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No 8—F. and A. M., H. E. Dickason, Sec'y (Athens), November 17, 1896—Provide additional supports for first floor by placing two girders not less than ten inches square, one at either side of center girders, to rest on posts twelve feet apart, posts to be not less than ten inches square and rest on solid footing in basement; provide automatic (self-closing) elevator gates at elevator openings at first and second floors; place a substantial hand-railing on stairway leading from basement. Reported compiled except elevator gates, which are under contract.
- No. 4—Crow & Whitmarsh (Cleveland), february 11, 1896—In front of building, remove balconies at second floor windows and connect balconies at third floor so as to make one long balcony, at each end of balcony provide ladders to extend to within ten feet of ground; in rear of building make no changes in fire-escape but provide better means for gettingion roof of one-story building by providing a bridge over areaway at the southwest corner of one-story part of building to cross beam, thus connecting carpet building with wall west of it, and from there provide a stairway to descend to within ten feet of the ground in alley along west side of carpet house. Complied.
- No. 5—William Taylor, Son & Co. (Cleveland), October 28, 1896—Provide automatic (self-closing) elevator gates at all elevator openings on each floor. Complied.
- No. 6—Charles Schwenker (Columbus), March 19, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 7—Mrs. Sessions, John M. Pugh, agent (Columbus), December 7, 1896—Provide an additional water-closet for the exclusive use of female employes, or set apart the one now in use exclusively for females and provide one for males; in no case must both sexes use the same closet. Complied.
- No. 8—C. Craine (Geneva), February 24, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 9—A. J. Ford (Geneva), February 24, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 10—Munger Estate, Henry Means, agent (Geneva), February 24, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied.
- No. 11—R. H. Munger and Frank Turner (Geneva), February 24, \*1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Complied,
- No. 12—E. M. Warden (Geneva), February 24, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor. Compiled.
- No. 13—Williams Brothers (Kent), February 29, 1896—Provide automatic (self-closing) elevator gates at elevator openings on each floor and a safety device to catch elevator in case cable should break; would suggest double cables. Not reported as complied.
- No. 14—Hartzell & Beary (Niles), December 9, 1896—Take out and rebuild the south corner of basement wall; provide means for conveying water away from building, so as to prevent running into foundation. Complied.



- No. 15-Mesdames Mary J. Young and Ada B. Warren (Piqua), April 21, 1896-Provide waterclosets on second and third floors for the use of male employes, also water-closets on second and third floors for the exclusive use of female employes; provide better means of egress from building by erecting three fire-escapes, the one on Main street side, balcony at third floor to take in the third and fourth windows from south corner, with a flight of eight-inch rise and eight-inch tread stairs to balcony at second floor in front of room No. 60; on the Ash street side of building, balcony at third floor to take in windows in room No. 27, balcony at second floor to take in windows in room No. 74, with a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at second floor, a flight of stairs to come down to within ten feet of the ground: in the angle of building, balcony at third floor to take in window in room No. 52, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof of one story building; from the top balcony of each fireescape iron ladders made rigid to same and to extend to roof, escapes to be constructed in accordance with specifications mailed under separate cover; remove door from rooms 52 and 27, so that access can be had to fire-escapes; place red lights in halls, same to be kept burning at all hours of the night and placard halls to read "red light leads to fire-escape," with a hand pointing in the direction of escape; door in hall on third floor and room 28 must be hung to swing both ways. Not reported as complied.
- No. 16-J. F. Davis (Portsmouth), March 4, 1896.—Provide automatic (self-closing) elevator gates at elevator openings at first and second floors. Compiled.

# STATISTICAL TABLES

OF

Public Hall, School, Opera House, Hotel, Church, Tenement and Miscellaneous Buildings

AND

Changes in Detail Ordered in Each.

TABLE XV.—PUBLIC HALLS INSPECTED DURING FISCAL YEAR ENDING NOV. 16, 1896.

;	For order see cor- responding number following this table.	######################################
	Means of extinguishing fire.	None St'd pipes & hose
ENERG NO 1: 10, 1000:	Means of heating.	Stoves and furnace. Stoves and furnace. Stoves and furnace. Stoves Stoves Stoves Stoves Stoves
TIPOUT TOOK	Means of lighting.	Oll lamps  Gas  Electricity  Gas and electricity  Gas and electricity  Oll lamps  Electricity  Oll lamps  Oll lamps  Oll lamps  Gas and electricity  Gas and electricity  Gas and electricity  Gas and electricity  Oll lamps  Electricity  Gas  Gas  Gas  Gas  Gas  Gas  Gas  Ga
D. C. C.	City or town.	Ashtabula Ashtabula Bedford Bryan Cambridge Canton Cartoliton Columbus Grove
	Name of owner.	David Zuber  Mr. S. A. McDaniel  Harris & Greves  J. L. Pocock  Harris & Greves  V. D. Latimer  Mr. Emily D. Good  Hall & Burnham  City of Bedford  W. J. Carroll  Long Br. S. McCure  A. J. Hutcheson  W. Lanfesty  Jonathan Colley  Mr. C. A. Adams  Mr. C. A. Adams  Mr. C. A. Adams  Mr. C. A. Adams  Mr. C. A. Adams  Mr. C. Fawcett  R. C. Fawcett  R. C. Fawcett  R. C. Fawcett  R. C. Fawcett  R. C. Fawcett  R. C. Fawcett  R. C. Fawcett  R. C. Fawcett  Mridan E. Horn  James Naughton  James Naughton  F. C. Sessions heirs  Ambon heir  James Naughton  F. C. Sessions heirs  Mayons  W. T. Mapel  Gorde Lodge No. 64, I. O. O. F.  Coll Grove Lodge No. 64, I. O. O. F.
2777		Hall
	Name of hall.	F and A M Hall  (J. A. R. Hall  K. P. Hall  K. P. Hall  K. P. Hall  F and A. M Hall  God's Hall  God's Hall  Masonic and Town Hall  Gorol's Hall  K. P. Hall  Gorol's Hall  K. P. Hall  Gorol's Hall  F and A. M Hall  Gorol's Hall  F and A. M Hall  Gorol's Hall  F and A. M Hall  Gorol's Hall  F and A. M Hall  Goo's F Hall  F and A. M Hall  F and A. M Hall  F and A. M Hall  Goo's F Hall  F and A. M Hall  K. P. Hall  F and A. M Hall  K. P. Hall  Goo's F Hall  Goo's F Hall  Hors Hall  Hors Hall  Goo's F Hall  Goo's F Hall  Hors

See No. 22; escape erected jointly by F. & A. M. and I. O. O. F.

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None Chemicals None City water None City water None Chem exting in Rydrants & hose Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None Chem exting in None	
None extern None e	
Broves  Hot air  Stoves  Stowes  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam  Steam	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Oil lamps  Electricity  Gas and electricity  Gas and electricity  Gas  Gas  Gas  Oil lamps  Gas  Oil lamps  Gas  Oil lamps  Electricity  Oil lamps  Class and electricity  Oil lamps  Electricity  Class and electricity  Oil lamps  Class and electricity  Oil lamps  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity  Class and electricity	
Columbus Grove. Continental P. O. Deflance  Edgerton  Elyria  Elyria  Findiay Franklin  Geneva  Greenfield  Greenfield  Hamilton  Hamilton  Hamilton  Hamilton  Hillsboro  Ironton  Ironton  Kent	
A. H. Day  Masonic Fratemity  A. F. Barnington.  J. C. Caldwell  J. G. Cadwell  Glass J. Welscenberger  Glass J. Welscenberger  Glass J. Welscenberger  Holgate Extate  Holgate Extate  J. B. Welscenburger  Holgate Extate  J. B. Welscenburger  J. B. Welscenburger  J. B. Welscenburger  J. B. Welscenburger  J. B. Welscenburger  J. C. A. Flickinger  Ext. Parnham  Mr. O. Bowen  Mr. O. O. E. Society  Hernan Ely Extate  C. A. Farnham  Mr. O. O. F. Society  Herny Wurst  C. O. O. F. Society  Henry Wurst  J. C. Governey and Mr. M. Webber  M. W. Tyler  M. W. Tyler  M. W. Jenner  M. W. Tyler  M. W. Jenner  M. W. Jenner  M. W. Jenner  M. W. Jenner  M. W. Jenner  M. W. Jenner  M. Hillsoper Chapter F. and A. M.  M. Hillsoper Chapter F. and A. M.  M. Hillsoper Chapter F. and A. M.  M. Hillsoper Chapter F. and A. M.  M. Hillsoper Chapter F. and A. M.  M. Haloran  J. C. Hayward  M. Haloran  M. Haloran  J. Burnberg  M. Haloran  J. Burnberg  M. Haloran  J. Burnberg  J. C. Governey Post No. 166, G. A. R.  Melkinkt & Bartram  Melkinkt & Bartram  Mockkon Lodde No. 316, E. & A. M.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.  Syndendes Bullding Co.	
### F. F. F. F. F. F. F. F. F. F. F. F. F.	The same of the same of

TABLE XV-PUBLIC HALLS INSPECTED DURING FISCAL YEAR ENDING NOVEMBER 15, 1896-Continued.

For order see corre- sponding number fol- lowing this table.	8538286655555555555555555555555555555555
Weans of extinguishing fres.	None St'd-pipes & hose None
Means of heating.	Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes Stoyes
Means o	Stoves Stoves Stoves Stoves Stoves
Means of lighting.	Oil lamps  Electricity Gas and electricity Oil lamps Cleetricity Oil lamps Class and electricity Oil lamps Class and electricity Oil lamps Class and electricity Oil lamps Class and electricity Oil lamps Class and electricity Oil lamps Oil lamps Oil lamps Oil lamps Oil lamps Oil lamps
City or town.	Kent Latty Leesville Lorain McConnelsville Malta Middletown Middle
Name of owner.	J. Y. Schivley  Marvin Kent  Mrs. M. E. Price  Mrs. M. E. Price  Mr. C. Alten  John Armstrong  W. Wagner  G. W. Wagner  G. W. Wagner  G. W. Wagner  G. W. Wagner  G. W. Wagner  G. W. Wagner  G. W. Wagner  G. P. Spragne  G. T. Twell  M. T. Twell  M. T. Twell  M. T. C. Frech  J. C. Frech  W. M. Straw  J. C. Frech  J. W. Lambert  W. M. Straw  J. P. Gasser  Henry Hyman  Michael Fhan  M. M. Lambert  F. W. Barn  M. M. Bard  M. M. Shard  G. Sweet  M. T. Sheffel  G. Sweet  M. T. Boldon  M. T. Sheffel  G. Sweet  M. T. Hodgon  Dr. Richard Gandern  M. T. Bordon  M. T. Bordon  M. T. Sheffel  G. Sweet  M. T. Hodgon  Dr. Richard Gandern  John F. Louge No. 260  K. P. Lodge No. 260  K. P. Lodge No. 260  John F. Hyman  M. T. Hodgon  M. T. Bordon  M. T. Hodgon  M. T. Hodgon  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hyman  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. T. Hyman  M. T. Hyman  M. T. Hyman  M. T. Hyman  M. T. Hodgon  M. T. Hyman  M. Then Hyman  M. T. Hy
Name of hall.	(G. A. R. Hall  K. P. Hall  K. P. Hall  Town Hall  Idesville Opera Hall  Armstrong's Hall  A. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  Hiverside Pavilion  K. P. Hall  K. P. Hall  K. P. Hall  K. P. Hall  Motth Falleid Town Hall  G. A. R. Hall  G. A. R. Hall  White Hall  W. H. Hall  G. A. R. Hall  W. H. Hall  G. A. R. Hall  G. A. R. Hall  W. H. Hall  G. A. R. Hall  G. A. R. Hall  M. M. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  M. M. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  G. A. R. Hall  H. D. O. F. Hall  W. H. Hall  H. D. O. F. Hall  G. A. R. Hall  H. D. O. F. Hall
Number:	<b>2662266226622262226</b>

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Stoves		::			::	***************************************		Gas Oil Jamms Stoves		Gas and electricity Hot air	Stoves	***************************************	::	7,
Gas	Van Wert Gas and electricity	Gas Flectricity		Cas .	100 131 131 131 131 131 131 131 131 131		7	Gas Oil Jamps				Electricity	GB8	7
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Column   James Richardson   Portsmouth   Gas   Stoves   None   Stoves   Stoves   None   Stoves   None   Stoves   None	colored) Ann Thomas			Ked Men's Hall First National Bank	Wm. Kehres	I.	A. M. Hall First National Bank of Oberlin C. W. Horr Estate	Village and township of Wellington Garwood & Huling				BILL F. & A. M. Dall Dr. A. J. Martin	***************************************	

TABLE XV-PUBLIC HALLS INSPECTED DURING FISCAL YEAR ENDING NOVEMBER 15, 1896-Continued.

For order see corresponding number following this table.	86586666666666666666666666666666666666
Means of extinguishing fres.	None St'd-plpes & hose None
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ighting.	decirieity.
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City or town.	Kent Oil lamps Lesty Leseville Gestricti Corain Gas and electricit Malts MoConnelsville Biectricit Malts Middleto wn Gas and e
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Name of hall.	C. A. R. Hall K. P. Hall T. Van Hall Town Hall Altersville Opera Hall Alters Hall A markrong's Hall F. and A. M. Hall C. A. R. Hall F. and A. M. and I. O. O. F. Hall F. and A. M. Hall F. and A. M. Hall F. and A. M. Hall F. and A. M. Hall F. and A. M. Hall F. and A. M. Hall F. and A. M. Hall F. and A. M. Hall Hermal Hall K. P. Hall G. A. R. Hall H. P. Hall G. A. R. Hall G. A. R. Hall G. A. R. Hall G. A. R. Hall G. A. R. Hall H. O. O. F. Hall K. P. Hall White Rall White Rall White Rall White Rall White Rall G. A. R. Hall White Rall White Rall G. A. R. Hall White Rall White Rall G. A. R. Hall White Rall White Rall C. O. O. F. Hall White Rall White Rall G. A. R. Hall White Rall C. O. O. F. Hall White Rall White Rall F. B. and A. M. Hall White Rall White Rall G. A. R. Hall White Rall White Rall F. B. A. R. Hall F. P. Rall G. O. F. Hall White Rall F. P. Rall F. Rall F. P. Rall F. P. Rall F. P. Rall F. P. Rall F. P. Rall F.
Number	8238288238955858999999999999999999999999

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None
Non
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Richardson Hall F. G. M. Hall F. G. M. Hall Good Samaritan's Hall G. O. F. Hall H. P. Hall H. P. Hall H. Hall H. Hall H. Hall H. Hall H. Hall H. Hall H. Hall H. Hall H. Hall H. P. Hall H. O. O. F. Hall H. P. Hall H. P. Hall H. P. Hall H. P. Hall H. P. Hall H. P. Hall H. P. Hall H. P. Hall H. W. R. M. Hall H. P. Hall

# PUBLIC HALLS.

# DETAILED STATEMENT OF CHANGES ORDERED, TO :WHOM ORDER WAS ISSUED AND DATE OF ISSUE.

- No. 1—F. and A. M. Hall (Antwerp)—David Zuber—August 4, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either standpipes and hose or some recognized chemical extinguisher. Order compiled with and certificate of inspection issued.
- No. 2—G. A. R. Hall (Antwerp)—Mrs. S. A. McDaniel—August 4, 1896—Provide substantial handrailings on stairways; change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate of inspection issued.
- No. 3-I. O. O. F. Hall (Antwerp)—Harris & Greves—August 4, 1896—Change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 4-K. P. Hall (Antwerp)—J. L. Pocock—August 4, 1896—Change exit doors to open outward; remove oil tank from under or near basement stairway; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose-jor some recognized chemical extinguisher. Partially complied.
- No. 5—National Union Hall (Antwerp)—Harris & Greves—August 4. 1896—Provide better means of egress from building by erecting fire-escape on north side, balconies at each floor to take in second and third windows from east corner, with flight of eight-inch rise and eight-inch tread stairs between and from first balcony above the ground a flight of stairs to come down within ten feet of ground, at bottom of stairs a landing not less than two feet long supported by bracket, also an iron ladder of sufficient length to reach the ground, held up by hooks or counter-balance weights; from top balcony an iron ladder made rigid to same and to extend to roof, fire-escapes to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on both sides of stairs leading to third floor; change exit doors to open outward; remove all oils and other combustible material, oil barrels, tanks, etc., from under or near stairway in basement; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 6—F. and A. M. Hall (Ashtabula)—V. D. Latimer—January 20, 1896—Provide better means of egress from building by erecting fire-escape on north side, balcony at third floor to take in first and second windows from east corner, with a fight of eight-inch rise and eight-inch tread stairs to descend within ten feet of ground, at bottom of stairs a landing not less than two feet long supported by bracket; provide:efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied with exception hand-railing along roof to top landing of stairs.
- No. 7-Goods Hall (Ashtabula)—Mrs. Emily D. Good—January 20, 1896—Provide better means of egress from building by erecting fire-escape on the west side, balcouy at third floor to take in west hall window or window north of air-shaft, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof of one-story building, landing and stairs to be twenty-four inches wide and constructed in accordance with the specifications furnished by this department, with the exception of width of stairs; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate



- No. 8—K. of H. Hall (Ashtabula)—H. Fassett—January 20, 1896—Provide better means of egress from building by erecting a fire-escape on the rear of building in alley, balcony at third floor to take in first window from north corner, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of ground; at bottom of stairs an iron ladder, held up by hoods or counter-balance weight, of sufficient length to reach the ground, escape to be constructed in accordance with specifications furnished by this department: provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 9—K. P. Hall (Ashtabula)—Hall & Burnham—January 20, 1896—Provide better means of egress from building by erecting a fire-escape on the east side, balcony at third floor to take in second window from north corner and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof of one story building, escape to be constructed scrictly dia accordance with specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate of inspection issued.
- No. 10-Masonic and Town Hall (Bedford)-City of Bedford-February 8, 1896-On the inside of each stairway ascending from vestibule on first floor to entrance of hall on second floor, provide a easing to ascend as high as the hand-railing and sufficiently distant from inside wall to allow on each winder step of each stairway no less than ten inches of a tread space on any part thereof; on the top of casing provide a substantial hand-railing from foot to top of stairs; arrainge doors at top of each stairs to fold and open toward wall enclosing stage; at each window from dressing-rooms in rear and to either side of stage, provide a life line or rope substantially fastened to the floor and of sufficient length to reach the ground; as an additional means of exit, cut down and widen into a door, forty-two inches wide in the clear, the second window on east side of building from southeast corner on second floor, door to open outward, either by folding or otherwise, against the wall, in such manner as to be no obstruction to descend by outside stairway therefrom; in front of doorway provide a balcony of iron, according to specifications, forty-two inches wide and sufficiently long to allow for width of doorway and for folding back southwardly door when opened; from balcony a flight of seven-inch rise and ten-inch tread stairs, forty-two inches wide, railed on both sides, to descend to the ground and land on a solid footing stone; inside of stairs leading from second floor to Masonic Hallon third floor, place a hand-railing eight inches from wall, and adjust a casing no less than twelve inches high to extend from foot to top of stairs on inside and no less than eight inches from wall, to correspond with hand-rail, this to provide sufficient tread space on each winder step in stairs; on the east side of dining-room, in wall facing south, provide a door to enter ante-room on east side of building; in the rear of building, near southeast corner, where present ladder escape is located, remove ladder and floor leading to same and erect in place thereof a balcony to extend out twenty-one inches beyond eave trough, the same to be substantially supported by brackets so as to permit no weight to rest on eave trough, from balcony a stairway eight-inch rise and eight-inch tread twenty-one inches wide to descend eastward to southeast corner, there to rest on a balcony of sufficient width to receive it, and from there a stairway eight-inch rise and eight-inch tread twenty-one inches wide to descend northward and land on balcony at second floor, already provided for; stairs must be railed on both sides and substantially anchored to wall and on the outside by braces as per state specifications; on each floor above the first provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher, two for second floor, one on stage and one in rear of hall; two on third floor, one in dining-room and one in rear of hall; when large assemblages of people are gathered in either hall the front doors must be unbolted from above and below and kept in such manner as to be easily and quickly opened. Not reported as complied.
- No. 11—Carroll's Hall (Bryan)—W. J. Carroll—June 15, 1896—Change exit doors to open outward; provide substantial hand-railings on stairs and efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied.

- No. 12—F. and A. M. Hall (Bryan)—Long Bros.—June 15, 1896—Provide better means of egress from building by cutting a doorway in west wall, south of partition wall in Masonic Hall close to northwest corner, door to be four feet wide and to open outward, at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend southward to an easy or landing at second floor, thence to the ground landing on a solid footing-stone, landing and stairs to be forty-two inches wide; from top balcony an iron ladder made rigid to same and to extend to roof; outside iron stairway to be constructed in accordance with specifications furnished by this department; if wooden stairs on west side of building from second floor are to be used repair same and put them in substantial condition and connect stairs from third floor to present wooden stairway; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported compiled all but fire extinguisher.
- No. 13—G. A. R. Hall (Bryan)—Mrs. A. J. Long—June 15, 1896—Provide better means of egress from building by converting the first window from south corner into a door, four feet wide, same to open outward, at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend northward to an easy or landing at second floor, thence to the ground; landings and stairways to be forty-two inches wide, and from top baloony an iron ladddr made rigid to same to extend to roof, escape to be constructed in accordance with specifications furnished by this department; change your present stairs leading from third to second floor so as to descend northward to a square landing, thence steps from square landing westward to the floor below, the present stairs are dangerous to descend especially if you have a rush from lodge-room; change exit doors to open outward; provide means of extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Compiled and certificate issued.
- No. 14—I. O. O. F. Hall (Bryan)—Niederaur Bros.—June 15, 1896—Provide better means of egress from building by converting second window from north corner into a door, same to be four feet wide and to open outward, at door provide a landing six feet long with a flight of eight-inch rise and eight-inch tread stairs to descend southward to a landing at second floor, thence to the ground, landing and stairs to be not less than three feet wide and constructed in accordance with specifications furnished by this department with exceptions spoken of in order; from top balcony of escape an iron ladder of sufficient length to reach the roof, made rigid to top balcony; provide substantial hand-railings on stairways and change exit doors to open outward; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported as partially compiled.
- No. 15-K. P. Hall (Bryan)—P. F. McClure—June 15, 1896—Provide better means of egress from building by erecting fire-escape on east end, balcony at third floor to take in first window from north corner, at second floor to take in first window from south corner, with a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at second floor, stairs to extend east along side of two-story building to the ground; from top balcony an iron ladder made rigid to same and to extend to roof, fire-escape to be constructed in accordance with specifications furnished by this department with exception stairs of escape are to extend to ground; change exit doors to open outward; provide substantial hand-railings on both sides of stairs; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Compiled with and certificate issued.
- No. 16—F. and A. M. Hall (Cambridge)—A. J. Hutcheson—February 4, 1896—Provide better means of egress from building by erecting a fire-escape in the northeast angle, balcony at third floor to take in first window from angle looking east from Masonic Hall, extend to angle, then east and take in the first window looking north from Protective Home Circle Hall, with a flight of eight-inch rise and eight-inch tread stairs to descend from balcony to within one foot of one story building; balcony and stairs to be not less than twenty-four inches wide and constructed in accordance with specifications furnished by this department; efficient means for extinguishing fire in both halls, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported compiled with and certificate of inspection issued.
- No. 17-1. O. O. F. Hall (Cambridge)—Wm. Lanfesty—February 4, 1896—Provide better means of egress from building by erecting a fire-escape on east side, balcony at third floor to take in second window from north corner of lodge room, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on present balcony at second floor, stairs to be twenty-four inches wide and constructed in accordance with specifications furnished by this department; substantial hand-railings on all stairways not so provided: efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.

- No. 18—K. P. Hall (Cambridge)—Jonathan Colley—May. 5, 1896—Provide better means of egress from building by erecting a fire-escape on the Seventh street side, balcony at third floor to take in third window from south corner, with a flight of eight-inch rise and eight-inch tread stairs to descend northward and land on balcony at second floor, balcony at third floor to be forty-two inches wide and stairs twenty-one inches and constructed in accordance with specifications furnished by this department; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied with order and certificate issued.
- No. 19—Public Hall (Cambridge)—Mrs. C. A. Adams—February 4, 1896 -East wall is out of plumb, west wall has a slight bulge near second floor; rear or south wall is cracked in a number of places and the building in general is in bad condition; I can suggest no means whereby the defects could be remedied and advise you to abandon the third floor for hall purposes; a large crowd on third floor attended by excitement might cause the building to collapse. Hall reported vacated and not used.
- No. 20—Martin's Hall (Canton)—Martin Bros.—October 28, 1896—Provide better means of egress from building by erecting fire-escape on the rear or west end, balconies at each floor to take in third, fourth, fifth and sixth windows from north corner, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within six feet of ground, fire-escape to be constructed in accordance with enclosed specifications with the exception spoken of in order, that last flight of stairs is to come down to within six feet of ground; provide hose on second, third and fourth floors of sufficient length to reach internal points on same floor where located, to be used in case of fire. Order complied with and certificate issued.
- No. 22—I. O. O. F. and F. and A. M. Halls (Carrollton)—R. C. Fawcett—September 4, 1896—Provide better means of egress from building by erecting a fire-escape on the south end, balcony at third floor to take in one window of Masonic Hall, extend west and take in one window in portion occupied by I. O. O. F., with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof of one story building, landing and stairs to be twenty-one inches wide and constructed in accordance with plans and specifications furnished by this department. Not reported as complied.
- No. 24—Town Hall 'Cecil)—Village of Cecil—October 19, 1896- Change exit doors to open outward and provide efficient means for extinguishing fire in hall, to consist of either standpipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 25—Elks Hall (Columbus)—John Hogue—June 11, 1896—Provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
  - Order issued to Association of Elks: Remove all obstructions from rear stairs; cut off or remove table so as to give free access to stairs and keep them clear of obstructions at all times; do not allow garbage to stand either on stairs or in hall. Order complied.
- No. 28—Horn's Hall (Columbus)—William E. Horn—July 23, 1896—Provide better means of egress from hall by erecting fire-escape on north side of building, balconies at second and third floors to take in the second and third windows from east corner and to be of sufficient length to accommodate a flight of eight-inen rise and eight-inen tread stairs between, and from balcony, at second floor a flight of stairs to come down to within ten feet of the ground, escape to be constructed in accordance with specifications furnished by department; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Portion of order relating to fire-escape reported complied.
- No. 27-I. O. O. F. Hall Columbus)—L. and J. Siebert—September 8, 1896—Provide better means of egress from building by erecting fire-escape on east end, balcony at third floor to take in first and second windows from north corner, with flight of eight-inch rise and eight-inch tread stairs to descend southward and connect with present outside stairs, escape to be constructed in accordance with specifications furnished by this department; provide efficient means for extinguishing fire in hall to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.

- No. 28—K. P. Hall (Columbus)—James Naughton—June 11, 1896—Provide better means of egress from building by creeting fire-escape online east end, balcony at third floor to take in the first window from south corner, with a flight of eight-inch rise and eight-inch tread stairs to descend northward and land on roof of one story building, landing and stairs to be twenty-one inches wide and constructed in accordance with specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 29—Orient Hall (Columbus)—F. C. Sessons Heirs—June 4, 1896—Provide better means of egress from building by erecting fire-escape on the east end, balcony at third floor to take in middle window of hall with a flight of eight-inch rise and eight-inch tread stairs to descend northward and land on roof of one story building, balcony and stairs to be twenty-one inches wide and constructed in accordance with specifications furnished by this department; provide efficient means for extinguishing fire to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 30—Segale's Hall (Columbus)—Joseph Segale—September 8 1896—Continue the present fireescape to fourth floor, balcony at fourth floor to take in the third and fourth windows
  from Long street on east side of building, with a flight of eight-inch rise and eightinch tread stairs to balcony at third floor, balcony and stairs to be constructed in the
  same manner as the one already up: provide efficient means for extinguishing fire in
  hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 31—Sessions' Hall (Columbus)—F. C. Sessions Heirs—June 4, 1896—Provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Building abandoned for Hall purposes.
- No. 32--Wells Post Hall (Columbus). Ambos Heirs-June 11, 1896.-Provide better means of egress from building by erecting fire-escape on the front or High street side, balcony at fourth floor to take in the second and third windows from south corner. balcony at third floor to take in second or double window and third window from north corner with a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at third floor a flight of stairs to come down to within ten feet of pavement, fire-escape to be constructed in accordance with specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 33--F. and A. M. Hall (Columbus Grove)-Masons--November 10, 1896--Provide better means of egress from hall by placing a fire-escape on the High street side of building, balcony at third floor to take in one window of Masonic Hall and one window of I. O. O. F. Hall, being one window on each side of division wall, with a flight of eight-inch rise and eight-inch tread stairs to descend to second floor to a balcony to take in corresponding windows as balcony at third floor, and from balcony at second floor a flight of stairs to come down to within ten feet of the ground, from top balcony an iron ladder made rigid to same and to extend to roof; if you do not desire to erect escape on High street side, we will permit it to be placed in the rear of building, provided that a window in ante-room at north corner of Masonic Hall side of building be taken in by a landing and a window in ante-room at west corner of L O. O. F. Hall side of building, to be taken in by a like landing and a stairway eight-inch rise and eight-inch tread, twenty-one inches wide, to extend to second floor and land on a balcony at that point, balcony to be the receiver of both stairways, stairways to pitch toward each other; from balcony at second floor a flight of stairs to come down to within ten feet of the ground. from top balconies iron ladders made rigid to same and to extend to roof, escape to be constructed in accordance with the enclosed specifications; door at entrance of hallway at second floor to be changed so as to open out against wall of hallway; it is now hung in center of jam, and must be changed to outer edge, which will allow the door to open full width; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 34—G. A. R. Hall (Columbus Grove)—W. T. Mapel--October 30, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled



- No. 35-I. O. O. F. Hall (Columbus Grove)-Columbus Grove Lodge 464, I. O. O. F.--November 10, 1896--Provide better means of egress from hall by placing a fire-escape on the High street side, balcony at third floor to take in one window of Masonic Hall and one window of I. O. O. F. Hall being one window on each side of division wall, with a flight of eight-inch rise and eight-inch tread, stairs to descend to second floor to a balcony to take in corresponding windows as balcony at third floor, and from balcony at second floor a flight of stairs to come down to within ten feet of the ground, from top balcony an iron ladder made rigid to same and to extend to roof: if you do not desire to place escape on the High street side, we will permit it to be placed in the rear of building, provided that a window in the ante-room at north corner of Masonic Hall side of building be taken in by a landing and a window in ante-room at west corner of I. O. O. F. Hall side of building to be taken in by a like landing and a stair way eight-inch rise and eight-inch tread, twenty-one inches wide to extend to second floor, to land on a balcony at that point, balcony to be the receiver of both stairways, stairways to pitch toward each other, from balcony at second floor a flight of stairs to come down to within ten feet of the ground, from top balcony iron ladder made rigid to same and to extend to roof; change main exit door to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Portion of order relating to fire-escape and ladders and change of door reported complied.
- No. 36—K. P. Hall (Columbus Grove)—A. H. Day-October 80, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied and certificate issued.
- No. 87—F. and A. M. Hall (Conneaut)—Masonic Fraternity—January 23, 1896—Provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 38—Harrington's Hall (Conneaut)—A. F. Harrington—January 23, 1896—Convert first window from west side in rear of building into a door, same to open outward, from door provide hand-railing to outside stairs, keep outside stairs clear of obstructions at all times; provide substantial hand-railings on stairs leading to second and third floors; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 39—K. P. and G. A. R. Hall (Conneaut —W. F. Stanley—January 23, 1896—Provide better means of egress from building by erecting fire-escape on the Washington street side, balcony at third floor to take in third and fourth windows from northeast corner, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of ground; at the bottom of stairs a landing not less than two feet long supported by the bracket and a drop-ladder, held up by hooks or counter-balance weight, of sufficient length to reach the ground, escape to be constructed in accordance with specifications furnished by department; change exit doors to open out vard, and provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. (Irder compiled with and certificate issued.
- No. 40—F. and A. M. Hall (Continental P. O., Murice City)—J. C. Caldwell—October 17, 1896—Change exit doors to open outward; place substantial hand-railings on stairways from top to bottom; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 41—K. P. Hall (Continental P. O.—Marice City)—L. C. Rosenberger—October 17, 1896—Bolt stairs solid against brick wall to make them rigid; change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either standples and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 42—Blanchard Hall (Defiance)—J. & G. Blanchard—April 9, 1896—Provide better means of egress from hall by converting second window from south corner on southeast side into a door, door to be four feet wide and open outward, at proposed door provide a landing six feet long, with a flight of seven-inch rise and ten-inch tread stairs to descend to the ground and land on a solid footing stone, landing and stairs to be



No. 42-Blanchard Hall (Defiance)-Concluded

forty-two inches wide and supported by gas pipe columns from the ground, so as to take as much weight from the walls as possible, stairs to be constructed in accordance with specifications furnished by the department, with the exception that there is to be no balcony at second floor; provide substantial hand-railings on all stairways not having same; a tight-fitting floor over abandoned stairs at third floor; four thereof the stair at third floor; four the rods at third and second floors, equal distances apart, tie-rods to be made of one and one-fourth inch round iron, extending through the north and south walls with a sixinch washer and nut on the outside drawn up tight; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Hall reported closed.

- No. 43—City Hall (Defiance)—City of Defiance—April 9, 1896—Provide better means of egress from building by converting the first window from Perry street on the northeastside into a door, same to open outward and to be four feet wide, at proposed door provide a landing six feet iong, with a flight of seven-inch rise and ten-inch tread, stairs to descend to roof of one story building; provide hand-railing extending along roof to southeast end of building; from roof provide a flight of seven-inch rise and ten-inch tread, stairs to descend to the ground and land on solid footing stone, landings and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by department: provide means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 44—Elks Hall (Defiance)—Holgate estate—April 9, 1896—Provide an outside iron stairway seveninch rise and ten-inch tread, in place of the present wooden stairway at the rear end
  of building, as the present stairs are in a very bad condition, iron stairway to be constructed in accordance with specifications; provide substantial hand-railings on all
  stairways and change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical
  extinguisher. Reported compiled.
- No. 45—F. & A.M. Hall (Defiance)—Clara J. Webster and Frank E. Wickenhiser—April 9, 1896—Provide swinging doors at center wall arch in hallway on second floor, door to be made to fit as close as possible, then in case of fire both stairways would not be cut off at same time; provide substantial hand-railings on all stairways; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Compiled.
- No. 46—G. A. R. Hall (Defiance)—J. B. Weisenburger—April 9, 1896—Provide better means of egress from building by converting the fifth window from Clinton street on the Second street side into a door, same to open outward, at proposed door provide a landing four feet long, with a flight of seven-inch rise and ten-inch tread, stairs to descend and connect with upper landing of present outside stairs, landing and stairs to be thirty-six inches wide and constructed in accordance with the specifications furnished by this department with the exceptions spoken of in this order; the lower landing of iron stairs to rest on bracket and not on platform of present stairs: provide substantial hand-railings on all stairways; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 47—I. O. O. F. Hall, (Defiance)—Henry J. Smith and others—April 9. 1896—Provide better means of egress from buildings by erecting a fire-escape on the Clinton street side of building, balcony at third floor to take in one window of Knights of Labor Hall and one window of I. O. O. F. Hall, landing to be forty-two inches wide with a flight of eight-inch rise and eight-inch tread, stairs to descend southward to a balcony on a level with second floor, balcony to extend to corner of building with a flight of similar stairs to descend westward to within ten feet of the ground, bottom of stairs to be supported by a bracket and drop stairs, held up by counter-balance weight, of sufficient length to reach the ground; from top balcony an iron ladder made rigid to same and to extend to roof; escape to be constructed in accordance with the specifications furnished by this department; provide substantial hand-railings on all stair—ways; change all exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher, Order compiled with and certificate issued.



- No. 48—K. of L. Hall (Defiance)—Henry J. Smith and others—April 9, 1896—Change all exit doors to open outward; provide substantial hand-railings on all stairways and efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 49-K. P. Hall (Defiance)-Holgate estate and Reuben Potterf-April 9, 1896-Provide better means of egress from building by converting first window southeast of partition between lodge-room and ante-room on First street side into a door, or the fifth window from Clinton street, door to be four feet wide and to open outward; at proposed door provide a landing six feet long, from landing a flight of seven-inch rise and ten-inch tread, stairs to descend to a landing on a level with second floor, thence to the ground, landings and stairs to be forty-two inches wide from top balcony an iron ladder made rigid to same and to extend to roof of building; escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on all stairways; change all exit doors to open outward; portion of wall at end of building under dining-room and dance hall, in part of building owned by Mr. Potterf, is in a very bad condition and should be repaired at once, it would be better for the entire building, if said wall was taken down and rebuilt; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 50.-Music Hall (Defiance)-Holgate Estate-April 9, 1896-Provide better means of egress from building by erecting an outside iron stairway on the southeast or alley side of building, as follows: convert the first window from Second street into a door four feet wide, said door to open outward; at said proposed door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend to an easy or landing at second floor, thence to within ten feet of the ground with a drop stairs held up by counter-balance weight of sufficient length to reach the ground, and lundings and stairs to be not less than thirty-six inches wide, from the top balcony an iron ladder made rigid to same and to extend to roof, iron stairway to be constructed in accordance with the specifications mailed you under separate cover, with the exceptions spoken of in this order; provide substantial hand-railings on both sides of stairway; change exit door at head of stairs to open outward; remove all combustible material and rubbish from under stairs on second floor; provide guards at all windows on Second street side of building, not less than three feet from floor, to prevent any one being pushed through or falling out of windows; provide some efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher; if chemical extinguishers are placed provide a kind that has been approved of by some board of underwriters. Order reported complied with and certificate issued.
- No. 51—Red Men's Hall (Defiance)—Joseph Ralston—April 9, 1896—Provide better means of egress from building by converting the first window from west corner of building on the northwest or alley side into a door four feet wide, door to open outward; at door provide a balcony to extend north and take in middle window, balcony at the second floor to take in windows immediately under and to be of sufficient length to acommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the balcony at second floor a flight of stairs to come down to within ten feet of the ground, at bottom of stairs a drop stairs of sufficient length to reach the ground, held up by counter-balance weight; from the top balcony an iron ladder made rigid to same and to extend to roof; itre-escape to be constructed in accordance with specifications furnished by this department; change exit doors to open outward and provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported partially complied with and Hall vacated.
- No. 52—Schultz Hall (Deflunce),—Michael Schultz—April 9, 1896—Provide better means of egress from building by erecting a fire-escape on the Clinton street side, balconies at each floor to take in the first and second windows from south corner and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at second floor a flight of stairs to come down to within ten feet of the ground; at bottom of stairs provide an iron ladder of sufficient length to reach the ground, held up by hooks or counter-balance weight; from top balcony an iron ladder made rigid to same and to extend to roof; escape to be constructed in accordance with specifications furnished by this department; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.

- No. 58—Union Veteran Hall Defiance)—C. A. Flickinger—April 9, 1896—Provide better means of egress from building by converting the first window from southwest corner on northwest or alley side into a door; at door place a landing, landing to be of sufficient length to take in proposed door and window in dining room; balcony at second floor to take in second and third windows from southwest corner, balconies to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the balcony at second floor a flight of stairs to come down to within ten feet of the ground, bottom of stairs to be supported by a bracket, a drop stairs attached held up by a counter-balance weight, of sufficient length to reach the ground, from the top balcony an iron ladder made rigid to same and to extend to roof, fire-escape to be constructed in accordance with specifications furnished by department; provide substantial hand-railings on all stairways; change all exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Compiled.
- No. 54—F. and A. M. Hall (Edgerton)—Jacob Miller—July 22 1896—Change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially complied with.
- No. 55—I. O. O. F. Hall (Edgerton)—B. A. Farnham—July 22, 1896—Provide better means of egress from building by erecting a fire-escape on south side, balconies at second and third floors to take in the first and second windows from west corner and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from first balcony above the ground a flight of stairs to come down to within ten feet of the ground; at, bottom of stairs a landing not less than two feet long supported by bracket; from top balcony an iron ladder made rigid to same to extend to roof; escape to be constructed in acordance with specifications furnished by department; change door at head of stairs in ante-room and one on west side of hall to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Building destroyed by fire.
- No. 56—K. P. Hall (Edgerton)—E. A. Farnham—July 22,1896—Change all exit doors leading from hall to open outward; remove all oils and other combustible material from under or near stairs; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Building destroyed by fire.
- No. 57—American Sons of Columbus Hall (Elyria)—Mrs. O. Bowen—July 14, 1896—Provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 58—F. and A. M. Hall (Elyria)—Herman Ely Estate—July 14, 1896—Change exit doors to open outward. Not reported as complied.
- No. 59—G. A. R. Hall (Elyria)—C. Savage and H. J. Eady—July 14, 1896—Provide efficient means for extinguishing fire to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 60—I, O. O. F. Hall (Elyria)—I. O. O. F. Society—April 17, 1896—Provide better means of egress from building by erecting an outside iron stairway on the south side, balcony at third floor to take in the west window, with a flight of seven-inch rise and ten-inch tread, stairs to descend eastward to a balcony or landing at one window at second floor, thence to the ground, landing and stairs to be thirty-six inches wide and constructed in accordance with specifications furnished, with the exception of width of balconies and stairs; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied and certificate issued.
- No. 61—K. P. Hall (Elyria)—Henry Wurst—July 14, 1896—Provide substantial stairway from landing on roof to descend to and connect with stairs descending to ground on west side of building; substantial hand-railings for stairs; repair frame addition located in rear; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.



- No. 62—Town Hall (Elmore)—City of Elmore and township—December 20, 1896—Provide substantial hand-railings on both sides of stairways; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 63—Eiks Hall (Findlay)—Frank Karst—January 30, 1896—Cut a doorway through west wal leading to roof of three story building door to open outward and to be made of fire-proof material, from doorway provide a hand-railing along the west wall to north corner of building, at corner provide a balcony, from balcony a flight of eight-inch rise and eight-inch tread stairs to descend to the ground and land on solid footing stone, escape to be constructed in accordance with specifications furnished by this department with the exception that stairs are to descend to ground instead of to within ten feet. Not reported as complied.
- No. 64—I. O. O. F. and F. and A. M. Hall (Franklin)—I. O. O. F. and F. and A. M. and First Nat. Bank—February 20, 1896—Provide better means of egress from building by erecting a fire-escape on the east side, balcony on third floor to take in south window of F. & A. M. Hall, balcony to be forty-two inches wide and forty-eight inches long, extend balcony south twenty-one inches wide to north window of I. O. O. F. Hall, at second floor provide a balcony at window immediately under the north window of I. O. O. F. Hall and of sufficient length to accommodate an eight-inch rise and eight-inch tread stairs-between, and from the balcony at second floor a flight of stairs to come down to within ten feet of ground, bottomof stairs to be supported by bracket with an iron ladder of sufficient length to reach the ground at an easy angle, held up by counter-balance weight; fire-escape to be constructed in accordance with specifications furnished by department; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported compiled with.
- No. 65—I. O. R. M. Hall (Franklin)—D. N. Thomas—February 20, 1896—Open up stairway in the southwest corner of hall, provide a partition around hatchway of stairs with a door opening outward as explained by inspector; provide substantial hand-railing on stairway and around hatchway on recond floor; change exit doors to open outward and provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 66—K. P. Hall (Franklin)—J. C. Governey and Mrs. M. Weber—February 20, 1896—Provide better means of egress from building by erecting a balcony stairway fire-escape on the west end, balcony at third floor to take in window at rear of stage, balcony to be forty-two inches wide and forty-eight inches long, with a flight of eight-inch rise and eight-inch tread stairs to decend and land on roof of one story building; provide a wooden ladder to be kept on roof of one story building, so that in case of fire same can be used to reach the ground; fire-escape to be constructed in accordance with the specifications furnished by this department; provide a wooden platform on inside of building at window four feet long and three feet wide, with short flights of stairs leading up to platform; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied with and certificate issued.
- No. 67—F. and A. M. Hall (Geneva)—Masonic Fraternity—February 25, 1896—Provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 68—G. A. R. Hall (Geneva)—A. M. Tyler—February 25, 1896—Provide substantial hand-railings on stairway leading to upper floors; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 69—1. O. O. F. Hall (Geneva)—Munger Estate—February 25, 1896.—Provide better means of egress from building by erecting fire-escape on the north side, balcony at third floor to take in the west window of I. O. O. F. Hall, extend west and take in east window of K. P. Hall, or the portion of building owned by Mrs. Jennie M. Gregory, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground: at the bottom of stairs provide a landing not less than two feet long supported by a bracket, fire-escape to be constructed in accordance with plans and specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either standpipes and hose or some recognized chemical extinguisher. Not reported as compiled.

- No. 70—K. P. Hall (Geneva)—Mrs. Jennie M. Gregory—February 25 1896.—Provide better means of egress from building by erecting a fire-escape on the north side, balcony at thirdfloor, to take in the east window of K. P. Hall, extend east and take in the west window of I. O. O. F. Hall, owned by the Munger Estate, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at the bottom of stairs a landing not less than two feet long supported by a bracket; fire-escape to be constructed in accordance with specifications furnished by department; provide some efficient means for extinguishing fire; to consist of either standpipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 75—Dance Hall (Hamilton)—John Bender—January 25, 1896.—Provide better means of egress from building by erecting a fire-escape on the rear or south end, balcony at third floor to take in the third window from east corner, at second floor to take in the third window from east corner, with a flight of eight-inch rise and eight-inch tread stairs between, and from the balcony at second floor a flight of stairs to come down to within ten feet of the ground; from foot of stairs a drop stairs, securely hinged to bottom of stairs and held up by counter-balance weight of sufficient length to reach the ground at the proper angle; escape to be constructed in accordance with specifications furnished by department; provide an iron ladder, made rigid to escape, to extend to roof of building; change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 76—I. O. O. F. Hall (Harrison).—Harrison Lodge, No. 140. I. O. O. F.—July 14, 1896.—Provide better means of egress from building by erecting fire-escape on the eastside, balcony at third floor to take in first window from south corner, with a flight of eight-inch rise and eight-inch tread stairs to descend and connect with present outside stairs leading from second floor to the ground, escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on wall sides of stairways; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 77—F. and A. M. Hall (Hillsboro)—Hillsboro Chapter, F. and A. M.—September 4, 1896.— Change all exit doors to open outward. Order complied with.
- No. 78—I. O. O. F. Hall (Hillsboro)—Lafayette Lodge, No. 25, I. O. O. F.—September 4, 1896.—

  Change all exit doors to open outward. Order complied with and certificate issued.
- No. 79-K. P. Hall (Hillsboro)—Mrs. Scott—September 4, 1896—Change all exit doors to open outward. Order complied with and certificate issued.
- No. 80—A. O. H. Hall (Ironton)—M. Haloran—August 29, 1896.—Supply hydrant on same floor where hall is located with threaded faucet and sufficient length of hose, to be hung in close proximity to hydrant, to reach anywhere on same floor, to be used in case of fire. Order compiled with.
- No. 81—B. P. O. E. Hall (Ironton)—A. J. Brumberg—August 29, 1896.—Supply hydrant on hall floor with threaded faucet and sufficient length of hose, to be hung in close proximity to hydrant, to be used in case of fire. Order complied with and certificate issued.
- No. 82—I. O. O. F. Temple (Ironton)—Ironton Odd Fellows' Temple Co.—August 29, 1896.—Supply hydrant on same floor where hall is located with threaded faucet and sufficient length of hose, to be hung in close proximity to hydrant, to reach anywhere on that floor, to be used in case of fire. Order complied with.
- No. 88—I. O. O. F. Hall—Colored (Ironton)—D. S. Murdock—August 29, 1896—Supply hydrant on same floor where hall is located, with threaded faucet and sufficient length of hose, to be hung in close proximity to hydrant, to reach anywhere on that floor, to be used in case of fire. Order compiled with.
- No. 84—K. P. Hall (Ironton)—F. E. Hayward—August 29, 1896.—Supply hydrant, on same floor where hall is located, with threaded faucet and sufficient length of hose to be hung in close proximity to hydrant, to reach anywhere on same floor, to be used in case of fire. Order complied with.



- No. 85—Memorial Hall (Ironton)—Dick Lambert Post No. 165, G. A. R.—August 29, 1896.—Supply hydrant, on same floor with armory and one on floor where library is located, with threaded faucet and sufficient length of hose to be hung in close proximity to hydrant to reach anywhere on same floor, to be used in case of fire. Order compiled with and certificate issued,
- No. 86—Public Hall (Ironton)—McKnight & Bartram—August 29, 1896.—Change door at foot of stairs to open outward: widen all doors leading from hall in third story so that they will not be less than four feet wide and open outward; supply hydrant on same floor where hall is located with threaded faucet and sufficient length of hose to be hung inclose proximity to hydrant to reach anywhere on same floor, to be used in case of fire. Order reported complied.
- No. 88—Syndicate Hall (Ironton)—Syndicate Building Co.—August 29, 1896.—Change door at bottom of stairs on ground floor so that it will open outward: make opening leading to stairs at second and third floors not less than five feet wide and hang doors to open outward; provide substantial hand-railings on both sides of stairway leading to third floor: supply hydrant on same floor where hall is located with threaded faucet and sufficient length of hose to be hung in close proximity to hydrant to reach anywhere on same floor, to be used in case of fire. Order complied with and certificate issued.
- No. 89—F. & A. M. Hail (Kent)—Rockton Lodge, No. 316, F. and A. M.—August 6, 1896—Provide substantial hand-railings on all stair ways; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 90—G. A. R. Hall (Kent)—J. W. Schiveley—July 29, 1896—Provide better means of egress from building by erecting fire-escape on east side, balcony at third floor to take in the second window from south corner, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on upper landing of present outside stairs from second floor, the bottom of escape to rest on bracket, escape to be constructed in accordance with specifications furnished by this department; remove all oils and other combustible materials from near head of stairs; provide substantial hand-railings on all stairways; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 91—K. P. Hall (Kent)—Marvin Kent—July 29, 1896—Provide substantial hand-railings on stairs; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 92—K. P. Hall (Latty)—Village of Latty—October 20, 1896—Change exit doors to open outward and provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported as partially compiled.
- No. 93—Town Hall Latty)—Village of Latty—October 20, 1896—Change exit doors to open outward and provide efficient means for extinguishing fire in hall to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 94—Leesville Opera Hall (Leesville)—Mrs. M. E. Price—February 5, 1896—Change doors at foot of main stairway to open outward; remove old door frame from stairs and provide substantial band-railings on stairway; clean out all rubbish, etc., from beneath stage; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported complied except means for extinguishing fire.
- No. 95—Alten's Hall (Lorain)—N. C. Alten—December 31, 1895—Provide better means of egress from building by erecting a fire-escape on the east end, balcony at third floor to take in north window with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at the bottom of said stairs a landing not less than two feet long supported by bracket; escape to be constructed in accordance with the specifications furnished by department; provide efficient means for extinguishing fire throughout the hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied with and certificate issued-



- No. 96—Armstrong Hall (Lorain)—John Armstrong—January 6, 1896—Provide better means of egress from building by converting south window on the west side of building into a door, same to open outward, at door provide a landing six feet long, with a flight of seven-inch rise and ten-inch tread stairs to descend northward to an easy or landing at second floor, thence to the ground and land on a solid footing stone, landing and stairs to be forty-two inches wide and to be constructed of good hard wood; change exit doors at foot of stairs to open outward; provide substantial hand-railings on all stairways not so provided; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order relating to fire-escape compiled; balance of order not yet reported.
- No. 97—F. and A. M. Hall (Lorain)—M. W. Wagner—December 31, 1865—Provide better means of egress from building by erecting a fire-escape on the east end, balcony at third floor to take in north window in Masonic Hall, extend north and take in south window of G. A. R. Hall, from balcony a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at bottom of stairs a landing not less than two feet long.supported by bracket; escape to be constructed strictly in accordance with specifications furnished by department; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported compfled with and certificate issued.
- No. 98—G. A. R. Hall (Lorain)—M. W. Wagner—December 31, 1895—Provide better means of egress from building by erecting a fire-escape on the east end of building, balcony at third floor to take in south window of G. A. R. Hall, extend south and take in north window of Masonic Hall, from balcony a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at the bottom of stairs a landing not less than two feet long, supported by bracket; evcape to be constructed in accordance with the specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied with and certificate issued.
- No. 99—I. O. O. F. Hall (Lorain)—George Wickens—December 31, 1895—Change exit doors leading to street to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 100—R. A. Hall (Lorain)—Citizens Savings Bank—December 31, 1895—Provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied.
- No. 101—G. A. R. Hall (McConnelsville)—W. P. Sprague—September 28, 1896—Provide better means of egress from building by erecting escape at north end of building, balcony at third floor to take in first window from west corner, with a flight of eight-inch rise and eight-inch tread stairs to descend eastward and land on roof of two story building, from the landing of stairs provide a runway three feet wide, with a hand-railing on each side, runway to extend northward to the north end of building, at end of runway provide a substantial ladder to be kept on roof and of sufficient length to reach the ground, to be used in case of fire; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied and certificate issued.
- No. 102—F. and A. M. Hall and I. O. O. F. Hall (Malta)—Lodge Building Co—September 23, 1896—Provide better means of egress from building by erecting fire-escape on east side, balcony at third floor to take in three first windows from south corner, with a flight of eight-inch rise and eight-inch treadstairs to descend to within ten feet of ground, at bottom of stairs a landing not less than two feet long supported by bracket; provide a fire-escape on west side of building, balcony at third floor to take in three first windows from south corner, with a flight of eight-inch cise and eight-inch tread stairs to descend and land on roof of one story building, balconies and stairs to be constructed in accordance with the specifications furnished by this department; provide efficient means for extinguishing fire in halls, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Portion of order relating to fire-escapes compiled and reported negotiating for extinguishers.

- No. 108—Tewell's Hall (Malvern)—T. Tewell—September 4, 1896—Provide better means of egress from building by erecting a fire-escape on the west side, balcony at second floor to take in second window from Porter street, balcony to extend to roof of one story building, from balcony a flight of stairs seven-inch rise and ten-inch tread, to descend at right angles with balcony to the ground, balcony and stairs to be forty-two inches wide and constructed in accordance with plans and specifications furnished by this department; provide a hand-railing around roof of one story building from balcony of fire-escape to fire walls on west side of roof. Not reported as compiled.
- No. 104—Jr. O. U. A. M. Hall (Middletewn)—Merchants National Bank—February 19, 1896—Provide better means of egress from building by erecting fire-escape on the west side, balcony at third floor to take in first window from Third street, balcony at second floor to take in the third window from Third street, balconies to be forty-two inches wide and of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground; at bottom of stairs a landing not less than two feet long, supported by bracket, with an iron ladder of sufficient length to reach the ground at an easy angle, same to be held up by counter-balance weight; from the top balcony an iron ladder made rigid to same and to extend to roof; escape to be constructed in accordance with the specifications furnished by this department; change outside exit doors to open outward; provide efficient means for extinguishing fire, to consist of either standpipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 106—Leibee Opera Hall (Middletown)—Jacob Leibee Heirs—February 8, 1896—Provide substantial hand-railings on all stairways; better means of egress from building by erecting a stairway of wood, landing at third floor to take in window in east side of hall and to be forty-eight inches wide at window, extending east to wall of building gradually widening to seventy-four inches; from balcony provide, a flight of seven-inch rise and ten-inch tread stairs to descend and land on roof of one story building; stairs to be provided with substantial hand-railings on each side; provide means on third floor for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 106-O. U. A. M. Hall (Middletown)--Leibee & McCallay-February 19, 1896-Provide better means of egress from building by erecting a fire-escape on the south side, balcony at third floor to take in second window from east corner, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof of one story building; balcony to be made forty-two inches wide and forty-eight inches long, stairs to be twenty-one inches wide and constructed in accordance with the specifications furnished by this department; change outside exit door to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied with.
  - Order issued to O. U.A. M., Shining Light Council—Remove long box from in front of second window from east corner on south side, where fire-escape is ordered, and keep all passageways to fire-escape clear of obstructions at all times. Complied.
- No. 107—Riverside Pavilion (Mineral Ridge)—Stock Co.—(S. S. Holten, agt.)—August 6, 1896—If hall is to be used for gatherings of any description it will be necessary to strengthen floors by placing girders at right angles under joists, supported by columns resting on solid foundation, then tie building together both ways by putting in three tie-rods each way at second floor line, same to extend clear through the building, with an eight-inch washer and nut on outside drawn up tight, tie-rods to be made of one inch round iron; provide efficient means for extinguishing fire in pavilion, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 108—Foresters' Hall (Niles)—Pew & Strickland—March 2, 1896—Strengthen the walls by placing tie-rods through building, one tie-rod through the front and rear walls up near upper ceiling and one immediately under second floor, rods to be placed as near northeast wall as possible; strengthen rear wall by placing tie-rods through south and northeast walls about six feet apart, tie-rods to be of one and one-half round iron extending clear through walls, with a twelve-inch washer and nut drawn up tight; remove all defective timber in platform at rear of building and substitute with new, its present condition is unsafe; provide substantial hand-railings on stairway leading up to lodge room and efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied and certificate issued.



- No. 109—Hibernian Hall (Niles —V. Mango—February 17, 1896—Provide better means of egress from building by erecting a fire-escape on the rear, balcony at the fourth floor to take in single window, at third and second floors balconies to take in three windows, at the first floor above basement balcony to take in one window, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground, escape to be constructed in accordance with specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled,
- No. 110—K. P. Hall (Niles)—J. C. Frech—December 9, 1895—Take down and rebuild portion of rear end of wall where defective, and replace all broken sills with material that will make wall safe; provide tie-rods through building, tie-rods to be one and one-half inch round iron and to extend clear through wall, with a ten-inch washer and nut drawn up tight, one rod to be placed within four feet of rear wall and the other about fifteen feet from the first, both rods to be placed through the walls at second floor; convey water away from building by providing proper spouting; repair basement stairs and place hand-ralling on same; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied.
- No. 111—North Fairfield Town Hall (North Fairfield)—Hoyt & Co. and Fairfield Township—Strengthen building by putting in three tie-rods, rods to extend from east to west, one at each end and one in center, then place one rod through center of building from north to south, all rods to pass immediately beneath floor and to be of one and one-forth inch round iron, rods to pass through walls and fastened on outside with six-inch washer and nut and drawn up tight, provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose, or some recognized chemical extinguisher. Reinspection of this building was requested, after order had been issued, which was granted; order will appear in the fourteenth annual report.
- No. 112—Town Hall (Ohio City)—J. W. Lambert—April 15, 1896—The Inspector reports building to be in an unsafe condition: columns supporting girders under joists are out of plumb; building is leaning somewhat to the east, and it is the opinion of the Inspector that the building should be abandoned for use as a hall for the public assemblage of people. Order complied with-
- No. 113—F. and A. M. (Paulding)—W. F. Straw--August 4, 1896—Provide better means of egress from building by erecting fire-escape on north side, balconies at second and third floors to take in third and fourth windows from west corner, with flight of eight-inch rise and eight-inch tread stairs between, and from first balcony above the ground a flight of stairs to come down to within ten feet of the ground, and at bottom of stairs a landing not less than two feet long, also an iron ladder of sufficient length to reach the ground, held up by hooks or counter-balance weights: from top balcony an iron ladder made rigid to same and to extend to roof, escape to be constructed in accordance with specifications furnished by this department: repair down spouting and connect same with tilling, so as to convey water away from foundation of building; change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 114-G. A. R. Hall (Paulding).-John E. Dell—August 4, 1896—Provide substantial hand-railings on stairs and efficient means for extinguishing fire in hall, to conist of either standpipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 115—I. O. O. F. Hall (Paulding)—Paulding Lodge No. 577, I. O. O. F.—August 6, 1896—Provide better means of egress from building by erecting fire-escape on west side, balconies at each floor to take in second and third windows from Perry street or north corner, and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at second floor a flight of stairs to come down to within ten feet of the ground, at the bottom of stairs a landing not less than two feet long supported by bracket, also an iron ladder of sufficient length to reach the ground, held up by hooks or counter-balance weight: from top balcony an iron ladder made rigid to same and to extend to roof, escape to be constructed in accordance with the specifications furnished by this department; provide substantial hand-railings on stairways from top to bottom; change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Only a partial compliance reported by Inspector.



- No. 116—K. P. Hall (Paulding)—J. P. Grasser—August 4, 1896—Provide substantial hand-railings on both sides of stairways; change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 117—G. A. R. Hall (Payne)—Henry Hyman—October 2, 1896—Provide substantial hand-railings on stairs from top to bottom; change exit doors to open outward: provide some efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate
- No. 118--I. O. O. F. Hall (Payne —Michael Finan—October 2, 1896—Change exit doors to open outward; provide substantial hand-railings on wall side of stairs; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 119—K. P. Hall (Payne)—A. M. Bailey and J. W. Stewart—October 2, 1896—Provide substantial hand-rallings on wall sides of stairs; change exit doors to open outward: provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 120—Red Men's Hall (Payne)—F. D. Sheffel—October 2, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 121—White's Hall (Payne)—Fred White-October 2, 1896—Provide substantial hand-railings on wall sides of stairs from top to bottom; change outside exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 122—F. and A. M. Hall (Pioneer)—C G. Sweet--July 24, 1896—Provide substantial hand-railings on wall sides of stairs from top to bottom: change exit doors to open outward; remove boxes and other combustible material from under stairs and provide heavy glass for openings in rises of stairs; the space beneath the stairs is used for storing boxes of goods, etc., and the openings are made in the rises to admit light; if the openings are covered with heavy glass it will not interfere with the light and will prevent thoughtless persons throwing lighted match or cigar through the opening among the combustble material: provide efficient means for extinguishing tire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 123—G. A. R. Hall (Pioneer)—M. T. Hudson—July 24, 1896. Provide substantial hand-railings on wall side of stairs from top to bottom; change exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied with in
- No. 124—I. O. O. F. Hall (Pioneer)—Dr. Richard Gaudern—July 24, 1896—Provide substantial handrailings on wall sides of stairs; change exit doors to open outward from hall and to the street; change the mode of fastening the outside double doors from lock to bolt, so that doors can be opened in case of fire without the necessity of hunting up janitor; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied with and certificate issued.
- No. 125-K. P. Hall (Pioneer)- K. P. Lodge No. 359-July 24, 1895--Provide substantial hand-railings on both sides of stairs: change exit doors to open outward, and provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 126--Brushart Hall (Portsmouth)—John F. Brushart—April 10, 1896--Provide better means of egress from building by converting the first window on third, floor, north side from Chillicothe street, into a door, same to open outward; at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread, stairs to descend westward to an easy or landing at window at second floor, thence to the ground; landings and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by this department; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.



- No. 127—Richardson Hall (Portsmouth)—James Richardson—April 10, 1896—Provide better means of egress from building by converting the first window from east corner on south side into a door, door to open outward, at proposed door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend westward to easy or landing at second floor, thence to the ground, landings and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by this department: provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
  - o. 128—I. O. O. F. Hall (Salem)—J. T. Brooks—February 10, 1896—Provide better means of egress from building by erecting a twenty-one inch iron stairway from north end of balcony at third floor to balcony at second, and from there to within ten feet of the ground, stairs to be eight-inch rise and eight-inch tread and constructed in accordance with specifications furnished by this department; provide substantial hand-railings on stairs leading from first to second floor and efficient means for extinguishing fire in halls, to consist of either stand-pipes and hose or some recognized jchemical extinguisher. Order reported compiled with and certificate issued.
- No. 129—F. and A. M. Hall (Van Wert)—C. A. Melshimer Estate and G. H. Marsh—May 23, 1896 Remove old wooden stairs starting from door in dining room and in its stead erect an outside iron stairway, landing at door six feet long, with a flight of seven-inch rise and ten-inch tread stairs to descend to an easy or landing on level with second floor, thence to the ground landing on a solid footing stone, landing and stairs to be forty-two inches wide, and from the top balcony an iron ladder made rigid to same and to extend to roof; escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on all stairways; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported compiled all but hand-railings and extinguishers.
- No. 130—Good Samaritans Hall—Colored (Van Wert), Ann Thomas—May 23, 1896—Provide better means of egress from building by erecting fire-escape on the north or Main street side, balconies at each floor to take in the first and second windows from west corner, with a flight of eight-inch rise and eight-inch tread stairs between, and from first balcony above the ground a flight of stairs to come down to within ten feet of the ground, from bottom of stairs an iron ladder of sufficient length to reach the ground, held up by hooks or counter-balance weight; from top balcony an iron ladder, made rigid to same, to extend to roof; provide substantial hand-railings on all stairways; means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Use of hall discontinued.
- No. 181—I. O. O. F. Hall (Van Wert), John H. Kauke—May 23, 1896—Provide better means of egress from building by converting the fourth window from Main street on the west or Washington street side, into a door four feet wide, same to open outward, at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend southward to an easy or landing at second floor, thence to the ground, landings and stairs to be thirty-six inches wide: from top balcony an iron ladder made rigid to same and to extend to roof, stairway to be constructed in accordance with specifications furnished by this department, with the exception of width of stairs; provide substantial hand-railings on both sides of inside stairway, efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported as partially complied.
- No. 132—K. P. Hall (Van Wert). McGavern and McKim—May 31, 1896—Provide substantial handrailings on all stairways not having same: change all exit doors from hall and stairway to open outward: provide means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Compiled all but hand-railing.
- No. 183—Maccabees Hall (Van Wert)—H. F. Rumps—May 23, 1896—Provide better means of egress from building by converting first window from east corner on south side into door four feet wide, same to open outward, at door place a balcony, same to extend westward and take in middle window; balcony at second floor to take in the first window from west corner with a flight of eight-inch rise and eight-inch tread stairs



No. 188-Maccabees Hall (Van Wert)-Concluded.

between balconies, from first balcony above the ground a fight of stairs to come down to within ten feet of ground, at bottom of stairs an iron ladder of sufficient length to reach the ground, held up by hooks or counter-balance weight, from top balcony an iron ladder made rigid to same and to extend to roof, escape to be constructed in accordance with specifications furnished by this department; change exit doors to open outward; provide means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.

- No. 134-Red Men's Hall (Van Wert -J. S. Brumback-May 23, 1896-Provide better means of egress from building by placing a balcony at third floor on the Main street side, balcony to take in two windows in portion owned by the First National bank and extend westward to corner of building, thence southward, taking in one window on the west side, from thence a stairway to descend to within ten feet of the ground; balcony on the Main street side to be twenty-four inches wide extending around corner of building on west side to a point just south of the first window: at this point balcony or landing to be forty-two inches wide, from thence the stairway to descend, which shall be twenty-one inches wide landing within ten feet of the ground on a bracket; from balcony at third floor an iron ladder to be attached to top balcony and extend to roof; escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on all inside stairways; change main exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Hall remodeled; inspector reports escape not necessary.
- No 186—Union Hall (Van Wert)—First National Bank—May 23, 1896—Provide better means of egress from building by placing a balcony at third floor on the Main street side, balcony to take in two windows in portion owned by the First National bank and extend westward to corner of building, thence southward, taking in one window on the west side, from thence a stairway to descend to within ten feet of the ground; balcony on the Main street side to be twenty-four inches wide extending around corner of building on the west side to a point just south of the first window; at this point balcony or landing to be forty-two inches wide, from thence a stairway to descend, which shall be twenty-one inches wide landing within ten feet of the ground, on a bracket; from balcony at third floor an iron ladder to be attached to top balcony and extend to roof; escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on all inside stairways; change main exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 136—Warnersville Hall (Warnersville)—William Kehres—July 14, 1896—Change all exit doors to open outward; provide substantial hand-railings on all stairways not having same; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 137—F. and A. M. Hall (Wellington)—F. and A. M. Fraternity—September 2, 1896—Provide better means of egress from building by erecting fire-escape on south side, balcony at third floor to take in first window from east corner, with a flight of eight-inch rise and eight-inch tread stairs to descend to within six feet of one story flat roof; balcony and stairs to be constructed in accordance with specifications furnished by this department; change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 138—I. O. O. F. Hall (Wellington)—I. O O. F.—September 2, 1896—Keep trap-door leading to and exit door leading from stairs under lodge free of obstructions at all times; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.

- No. 139—Jr. O. U. A. M. Hall (Wellington)—First National Bank of Oberlin—September 2, 1896—Provide better means of egress from building by erecting fire-escape on west side, balcony at third floor to take in first window from south corner, with a flight of eight-inch'rise and eight-inch tread stairs to descend to within ten feet of the ground, at bottom of stairs a landing not less than two feet long supported by bracket; escape to be constructed in accordance with specifications furnished by this department; provide substantial hand-railings on all stairways; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.
- No. 140—K. P. Hall (Wellington)—C. W. Horr Estate—September 2, 1896—Provide substantial handrailings on stairway leading to third floor; extend hallway on second floor across to east side of building and at each end of hall provide a flight of stairs to third floor, stairs to be three feet wide; change exit doors to open outward; provide emcient means for extinguishing fire in hall, to consist of either stand-pipes and hose, or some recognized chemical extinguisher. Order complied with and certificate issued
- No. 141—Town Hall (Weilington)—Village and township of Weilington—September 2, 1896—Provide substantial hand-railings on all stairways; efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Reported complied all but hand-railings.
- No. 142-F., and A. M. Hall (West Liberty -Garwood and Huling-January 8, 1896-Provide better means of egress from building by erecting a fire-escape on the south side, balcony at third floor to take in first window from east corner, balcony at second floor to take in second window from east corner, balcony at third floor to be forty-two inches wide and forty-eight inches long, and balcony at second floor to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs, from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground, bottom of stairs to rest on bracket; at this point place an iron ladder, held up by hooks or counter-balance weight, to be of sufficient length to reach the ground, from the top balcony an iron ladder made rigid to same and to extend to roof: escape to be constructed in accordance with specifications furnished by this department, with the exception of balcony at third floor which is to take in but one window; change exit doors to open outward; provide substantial hand-railings on stairway from second to third floors; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 143—F., and A. M. Hall (Willshire)—George Bobilya—June 3, 1896—Provide better means of egress from building by converting the windows on south side of hall on third floor into a door, same to open outward and to be four feet wide, at door provide landing six feet long, with a flight of seven-inch rise and ten-inch tread stairs. forty-two inches wide to descend westward and land on solid footing stone, stairway to be constructed in accordance with specifications furnished by this department, with exception that there is to be no balcony at second floor, balcony and stairs to be supported by gas-pipe columns so as to take the weight from the wall: bracket supporting balcony should extend through and tie to the second or third joist or two or three feet back into the building; provide substantial hand-rallings on both sides of all stairways; change exit doors to open outward and provide efficient means for extinguishing fire to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 144—K. P. Hall (Willshire)—Henry Althon—June 3, 1896—Provide better means of egress from building by converting the first window from south corner at third floor into a door, same to be four feet wide and to open outward, at door provide a landing six feet long, with a flight of seven-inch rise and ten-inch tread stairs to descend northward to the ground; landing and stairs to be constructed in accordance with specifications furnished by this department, with the exception that there is to be no balcony at second floor; landing and stairs to be forty-two inches wide land supported by gas-pipe columns so as to take the weight off wall; bracket supporting upper landing and stairs must extend through and tie to second or third joists and tie back two or



No. 144-K. P. Hall (Willshire)-Concluded.

three feet into the building; provide substantial hand-railings on both sides of stairways; change exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.

- No. 145—City Hall (Wilmington)—City of Wilmington—March 4, 1896—Change exit doors at head of rear stairs to open outward; provide substantial hand-railings on rear stairs; and efficient means for extinguishing fire to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 146—I. O. O. F. Hall (Wilmington)—Star of Hope Lodge, No. 127, I. O. O. F.—March 12, 1896—Provide an additional stairway from hall on third floor, stairs to be located in southeast corner of building and land in cloak-room on second floor; change door leading from cloak-room to hall on second floor and also door from dance hall on second floor, to open outward; change all other exit doors to open outward; remove coalboxes, stove, etc., from hall on second floor so as not to obstruct passageways to exits; provide efficient means for extinguishing fire in halls, to consist of either stand-pipes and hose or some recognized extinguisher. Not reported as complied.
- No. 147—I. O. O. F. and F. and A. M. Hall (Wilmington)—Dr. A. J. Martin—March 4. 1896—Remove door from hinges leading to small room so that egress can be had from both lodge rooms to shed roof; separate the hall from stairs by providing a partition from floor to ceiling with a door in same, door to swing outward; provide substantial bandrailings on stairs from second to third floors; change outside exit doors to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled,
- No. 148—K. P. Hall (Wilmington —D. F. McCoy—March 4, 1896—Provide substantial hand-railings on stairs and efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 149-F. and A. M. Hall (Wooster)-Jacob Frick-August 15, 1896-Provide better means of egress from building by cutting a doorway four feet wide on north side of building from dining room of Masonic Hall, door to open outward; at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend east and land on brick wall of one-story building, and on level with roof of building; from top balcony an iron ladder made rigid to same and to extend to roof, landing and stairs to be forty-two inches wide and to be constructed in accordance with the specifications furnished by the department; in order to accommodate stairs it will be necessary to cut a door at third floor a sufficient distance from east corner to let in rise and tread of stairs, it will also be necessary to cut an opening through brick wall of one-story building forty-two inches wide, down to a level of roof of building, opening to be located at the angle of one and two-story buildings; at opening provide a landing forty-two inches long and forty-two inches wide, with a flight of seven-inch rise and ten-inch tread stairs to descend south along side of wall of one-story building to the ground; provide a hand-railing from north handrailing on stairs from Masonic Hall to extend north along brick wall and connect with hand-railing of stairs leading to the ground, also hand-railing on roof of onestory building from stairs of G. A. R. Hall and connect with hand-railing on stairs leading to the ground; remove all combustible material from under or near stair. ways and hall; change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.
- No. 150-G. A. R. Hall (Wooster)—Jacob Frick—August 15, 1896—Provide better means of egress from building by converting the first window from .west corner on north end of building into a door three feet wide, same to open outward, also convert window in ante-room of W. R. C. Hall into a door three feet wide, same to open outward; at proposed door provide a landing three feet wide, same to extend west to angle wall of Masonic building, thence north, with stairs to land on roof on line with north wall of Masonic building, stairs to be seven-inch rise and ten-inch tread and constructed



No. 150-G. A. R. Hall (Wooster)-Concluded.

in accordance with specifications furnished you; provide substantial hand-railings on both sides of stairs leading to thirdfloor; change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.

No. 151—W. R. C. Hall (Wooster)—Jacob Frick—August 15, 1896—Change all exit doors to open outward; provide efficient means for extinguishing fire in hall, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.

TABLE XVI-COLLEGE AND PUBLIC SCHOOL BUILDINGS INSPECTED DURING YEAR.

	Name of school and city or town where located.	Means of heating.	Means of extinguishing fire.	Means of egress.	Construction.	Seating capacity.	For order see corresponding number fol- lowing this table.
	ASHTABULA.						
- >	Columbus Street School	Hot air	None,	1 stairway	2 story brick	280	-
	ASHTABULA HARBOR.				•		
	Ashtabula Harbor Special District School	Hot air	None	2 stairways	2 story brick 2 story frame	430	63 BS
	ASHVILLE.						
~	District School No. 6	Stoves	None	Doors	1 story brick	\$	*
	ATHENS						
≍	Onio University	Steam and hot air	Stand-pipes and hose 1 stairway	1 stairway	8 story brick	188	10
	BALTIC.						
~~	Baltic Special District School	Stoves	None	2 stairways	2 story brick	180	•
	BEALLSVILLE.						
~~	Beallsville Special District School	Stoves	None	1 stairway	2 story brick	001	-
	BLAKESLKE.						
~	District School No. 14	Stoves	None	1 stairway	2 story brick	E	<b>∞</b>
	BOTKINS						
~~	9 Botkins Public School	Stoves	Stoves   None   1 stairway	1 stairway	2 story brick	-	•

TABLI: XVI-COLLEGE AND PUBLIC SCHOOL BUILDINGS INSPECTED DURING YEAR-Continued.

	For order see corresponding number following this table.	01		=		188 188 198 198 198 198 198 198 198 198		i		18				13
	Seating capacity.	8		99		3288 8		\$		8 <b>68</b>	•	8		86
. Communea.	Construction.	2 story frame		2 story brick		2 story brick 2		2 story brick		3 story brick	-	2 story brick		2 story brick
TO DOWN IT	Means of egress,	1 stairway		1 stairway		1 stairway		2 stairways		2 stys., 2 fire escapes 3 story brick 2 stairways		1 stairway		1 stairway
COHECT AND I CHILC SCHOOL BOHDINGS INSIECTED DONING IRAN	Means of extinguishing fire.	None		None		None		Stand-pipes and hose		Chemical extinguishers None		Chemical extinguishers		None
CBAIC SCHOOL I	Means of heating.	Stoves		Hot air		Stoves Hot air Stoves		Steam		Hot air		Hot afr		Stoves
TURNING CONTROL WIRE	Name of school and city or town where located.	BRICETON. 10 District School No. 3	BRIINEPORT.	11 West End School	BRYAN.	Butler Street School Chettral School Cherry Street School South School	CADIZ.	Main School	CAMBRIDGE.	Central School	CABROLLTON.	Union School	CECIT.	21   Ceell Special District School
1	Number.	92		=		5722		91		222		æ		2

Demitory-Ohio State Laiversity.   Stoyes   Columbia State Laiversity   Stoyes   Columbia State Laiversity   Stoyes   Columbia State Laiversity   Stoyes   Columbia State State   Stoyes   Stoy		ន	2				88		83		8		######################################	888		84		<b>8</b>		83		\$	17
December   Columbus	_		450				308		99		8		\$ 00 E	319		342						8	88
December   Columbus			3 story brick		2 story brick	=	2 story brick						2 story brick					3 story brick	•			2 story brick	2 story brick
Dormitory—Ohio State University Parson's Business College COLUMNUS GROVE COLUMNUS GROVE CONTRINENTAL CONTRINE		3 stairways	3 st'ys & 1 fire-esc'pe		2 stairways,	:			1 stairway				2 stairways.  Doors  2 stairways.	I Stalf way		2 stairways		4 stairways.		Stairways		3 stairways	
Dormitory—Ohio State University Parson's Business College		None Chemical extinguishers	None		Chemical extinguishers	stand-pipes and hose]	None		None		None							Chemical extinguishers, stand-pipes and hosel		None			Noue
Dormitory—Ohio State University Parson's Business College COLUMBUS GROVE. COLUMBUS GROVE. COLUMBUS GROVE. CONNEAUT. CONNEAUT. CONNEAUT. CONNEAUT. CONNEAUT. CONNEAUT. CONNEAUT. CONTINENTAI, P. O. Marice City Public School. Dague Special District School. Dague Special District School. Dague Special District School. Franc School. Deflex School. Deflex School. Deflex School. Deflex School. Deflex School. Deflex School. Second Ward School. Deflex School. Second Ward School. Deflex School. Deflex School. Second Ward School. East Liver Palestine School. East Palestine School. East Palestine School. Eincerfox. Einchrois.	_	Stoves	 Hot air											Stoves Hot air		Stoves		Hot afr		Steam		•	
	COLUMBUS.	Dormitory—Ohio State University Parson's Business College		CONNEAUT.	Conneaut Public School No. 1 Conneaut Public School No. 2 Conneaut High School	ral, P. 0.	Marice City Public School.	CRIDERSVILLE.	Cridersville Special District School	DAGUE.	Dague Special District School	DEFIANCE.	Fourth Ward School	Our Ludy of Perpetual Help School Second Ward School. Third Ward School	DELP		EAST LIVERPOOL.	Central School		East Palestine School	Eligerton.	High School	FLMORE. Elmore Special District School

TABLE XVI-COLLEGES AND PUBLIC SCHOOL BUILDINGS INSPECTED DURING YEAR -Continued.

Searing capacity. For order see corresponding number following this table.	261			<b>8</b>		00000 0000 0000 0000 17.5
		:				P004 94
Construction.	2 story brick	2 story frame	2 story brick	2 story brick	3 story brick	2 story brick
Means of egress.	2 stairways	2 stairways 2 1 stairway	3 stairways	3 stairways	2 stairways	2 stairways 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Means of extinguishing fire.	None	NoneChemical extinguisher	Chemical extinguisher	None	Chemical extinguisher Stand-pipes and hose	Stand-pipes and hose
Means of heating.	Stoves	Stoves	Steam	Sloves	Stoves	Stoves Hot air Stoves
Name of school and city or town where located.	Felicity Village School	43 Primary School. 44 Normal School. 45 Old Normal School.  CREMETELD.	46 Greenfield Public School	47 District School No.5	Bust End School  Hillsboro College  South Side School  IRONTON.	EXIMENDED SCHOOL  EXIMENDITY SCHOOL  EXIMENDITY SCHOOL  EXIMENT SCHOOL  EXIMENT SCHOOL  EXIMENT SCHOOL  EXIMENT SCHOOL

## INSPECTOR OF WORKSHOPS AND FACTORIES.

	<b>25</b> 25		8		19		8				2 <b>8</b> 2328		r		74		13 <b>33</b>
_	85.00 500 500 500		415				156		982		90.000 80.00 00.000 90.00 00.000 90.00		<del>5</del>	38.93	 <u>s</u>		ZZ.
_	2 story brick		3 story brick		2 story frame	-	2 story brick		3 story brick		2 story brick 2 2 8		2 story brick	3 story 2 story frame	2 story frame		2 story brick
_	1 st'y & 1 fire-escape 1 stairway		6 stairways		2 stairways		1 stairway		2 stairways		stairways		l stairway	1 st'y & 2 fire-esc'p's 1 stairway	l stairway		3 stairways
	None		Stand-pipes and hose		None		None 1 stairway		Stand-pipes and hose		None		None	Chemical extinguishers	None 1 stairway		None
_	Hot air		Hot air		Stoves		Hot air		Steam		Hot air.		Stoves	Steam	Stoves		Hot air Hot air
JEFFERSON.	Jefferson Educational Institute	Kent.	Central School	Килвиск.	Killbuck Public School	LATTY.	Latty Special District School Hot air	LEETONIA.	North Side School	LIMA.	65 Elizabeth Street School 66 Gurfield School 67 Grand Avenue School 68 Pine Street School 69 West End School	LINISEY.		Central School	 Melrose Special District School	Middletown.	Central School. Holy Trinity School North School
	28.28		8		19		윮		83		18 18 18 18 18 18 18 18 18 18 18 18 18 1	2	7	દા	 7.		133

TABLE XVI--COLLEGE AND PUBLIC SCHOOL BUILDINGS INSPECTED DURING YEAR-Continued.

For order see corresponding number fol- lowing this table.		82	. 88	8	£282282	8
Seating capacity.	88	<b>22</b> 80	240	8	38 <b>3 8</b> 83	£
Construction.	2 story, brick	2 story brick	2 story brick	2 story brick	3 story brick	
Means of egress.	i stairway	2 stairways 1 stairway	1 stafrway	1 stairway	4 stairways 1 ktairway 2 stairways 1 stairway 2 stairway	
Means of extinguishing fire.	Chemical extinguishers	None	Chemical extinguishers	None	Chemical extinguishers  Chemical extinguishers	None
Meuns of heating.	Stoves Hot air	Hot alrStoves	Hot air	Hot air	Steam	Stoves
Name of school and city or town where locuted.	MILLERISBURG. (Tlay Street School Union School	MONTPELIER. Brick School Frume School	Morrow Public School	North Lawrence. District School No. 9	OBERLIN.  Baldwin Hall, Oberlin College Council Hall, Oberlin College Lord Hall, Oberlin College Lord Hall, Oberlin College Peters Hall, Oberlin College Toulcott Hall, Oberlin College Warner Concert Hall, Oberlin College	OSNABURG.  ** District School No. 5
Number.	₹%	£ £	*8	**	288322883	8

None Doors Statemen Story frame Story frame Story frame Story frame
None 2 Stairways z Story Irane
2 story brick
None 1 stalrway 2 story brick
Chemical extinguishers 2 stair ways 2 story brick
2 stairways 2 story brick
stairway 2 story brick.
1 stairway 2 story frame
None
None Doors 1 story brick
None
None Doors Doors
Chemical extinguishers  2 stairways

TABLE XVI-COLLEGE AND PUBLIC SCHOOL BUILDINGS INSPECTED DURING YEAR-Continued.

For order see corre- sponding number fol- lowing this table.	5	11		i		117		118		611		120		181
Seating capacity.		ଛିଛି		23		220		<b>302</b>		130		8		<del>8</del> 8
Construction.	3 story Brick			1 story brick	•	2 story brick		2 story brick		2 story brick		8 story brick		2 story frame
Means of egress.	3 stairways			Doors		2 stairways		1 stairway	,	1 stairway		3 stairways		2 stairways
Means of extinguishing fire.	Chemical Extinguishers	: :		None		None		None		None		Chemical extinguishers		None
Means of heating.	Steam	Hot air.	•	Stove		Hot air		Stoves	•	Hot air		Hot alr		Stoves
Nume of set		East End School West End School	WESTMINSTER.	District School No. 5	WEST UNITY.	West Unity District School	WILLSHIRE.	Willshire Special District School	WILMINGTON.	Smith Place School	WOOSTER.	Wooster High School	YOUNGSTOWN.	Briar Hill School
Number.	113	122		116		117		118		119		130		<u>- 23</u>

25 25 25 83 83	
<b>캶</b> 윉뜭걟뚕뀲	
3 story brick	
1   2   2   2   3   3   4   5   5   5   5   5   5   5   5   5	
Hot air and stream   Chemical extinguishers   2 strivs & 2 fire-esc p's   3 story briok     2 stairways   2   2   2     3 story briok   2 stairways   2   2     5 story frame   1 story frame   1 story frame     5 story briok   2 stairways   2   2   2     5 story frame   1 story frame   2   3 story frame	
Hot air	
123   Central School	)

## COLLEGE AND PUBLIC SCHOOL BUILDINGS.

## ORDERS IN DETAIL AND DATE OF ISSUE.

- No. 1—Columbus Street School Building (Ashtabula), January 20, 1896—Provide efficient means for extinguishing fire by attaching one-inch hose to stand-pipes on each floor, or by placing in building some recognized chemical extinguisher. Order complied with.
- No. ?—Ashtabula Harbor Special District School (Ashtabula Harbor), January 20. 1896—Provide efficient means for extinguishing fire throughout building, to consist of either standpipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 3—Ashtabula Harbor Special District School Annex (Ashtabula Harbor), January 20, 1896—
  If second floor is used it will be necessary to provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 4—District School No. 6 (Ashville). A pril 29, 1896—Fill up around school-house with good sand or gravel, filling to be as high as bottom of top course of foundation and slope away from building; fill up the cracks on south side with cement: change exit doors to open outward: repair roof or replace with new one; connect the down spouting from roof with tile so that water from roof will be carried away from foundation. Order compiled with and certificate issued,
- No. 5—Ohio University (Athens), January 6, 1896—Change the west and south exit doors on first floor to open outward. Order compiled with.
- No. 6—Baltic Special District School (Baltic). December 11, 1896—Provide tie-rods through building, one rod north and south about two feet from east wall, and one rod north and south through center of building; one rod east and west about two feet from south wall and one rod east and west about two feet from north wall, rods to be placed immediately under joists of second floor, and similar rods immediately under ceiling from second floor, rods to be made of one and one-fourth inch round from with an eight-inch washer on outside with nut drawn up tight; while the tie-rods are being placed in position, the tie-bolts in roof can be tightened; if you desire to put a boller plate clipp from one rod to the other around the corner, you can leave it to the judgment of the man who puts in the rods; repair plastering where it is off and brick-work under roof where brick were taken out: point up all cracks in wall with good cement; be sure that the water from roof is conveyed from foundation of the building; provide means for extinguishing fire in building, to consist of either standpipes and hose or some recognized, efficient chemical extinguisher. Compiled with except means for extinguishing fire.
- No. 7-Beallsville Special District School (Beallsville, May 6, 1897-South and west walls are considerably cracked caused by foundation settling: second floor sags some two inches, endangering the building; roof is in a very bad condition, also outside stairs: the plastering is loose and in a number of places has fallen off; the building in general is in a dilapidated condition, and to attempt to repair it would put your Board to considerable expense, and when repaired you would still have an old building; however, if you wish to repair building it will be necessary to take out the floors entirely and put in new; provide heavier joists, set closer together, and also new roof; place tie-rods made of one and one-fourth inch round iron through the building north and south and east and west at second floor and up at the square of the building just under roof; plastering must be repaired where it is loose and falling off: rebuild present outside stairs on the east side and securely anchor them to the wall; provide another flight; of stairs on the opposite side of building; connect down spouting from roof with tile, so that the water can be conveyed from foundation of building; efficient means for extinguishing fire throughout building, to consist of either stand-pipes and ho∈e or some recognized chemical extinguisher. New building being constructed.



- No. 8-District School No. 4 (Blakeslee), July 24, 1896-The walls of building at second story are very light and hardly of sufficient thickness to sustain a slate roof; walls are spreading at second floor on all sides, and if you intend to continue the use of this building it will be necessary to provide three tie-rods east and west, one located near south wall, one near north wall and one in center of building; four tie-rods through north and south, one near east wall, one near west wall and two at equal distance apart between the two; tie-rods to extend clear through the building with a six-inch washer and nut on outside drawn up tight; tie-rods to be made of one and one-fourth inch round iron; provide better means of egress from building by cutting the first window from south corner on west side down to a door four feet wide, door to open outward; at door provide a landing not less than six feet long, from landing a seveninch rise and ten-inch tread stairway to descend to the ground and land on solid footing stone, landing and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by department; support balcony and stairs with upright iron columns, so as to take as much weight off the walls as possible; provide substantial hand-railings on wall sides of stairs: change exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 9—Botkins Public School (Botkins), March 26, 1896—Inspector reports building to be of inferior construction, walls being but nine inches: after building was erected an additional course of brick was added to the height of one story, which did not add greatly to its strength; the east wall is considerably cracked and the north wall is bulged; it would be impossible to suggest any remedy whereby building could be made substantial and would therefore recommend that it be abandoned for school purposes. Not reported complied.
- No 10—District School No. 3 (Briceton), October 20, 1896—Building is in a very bad condition; foundation is made of cobble stones that have settled, causing east wall to settle about four inches, and settling of foundation has sprung the wall inward causing it to throw west wall three inches out of plumb; southeast corner is badly out of plumb; and wall at southwest corner is in bad condition; building might be made fairly safe by tying it together diagonally with tie-rods from plate corners to sill corners of east, west, north and south walls, also from northeast corner to center of west wall; tie rods to be placed at second floor Order reported complied
- No. 11—West End School (Bridgeport), March 26, 1896—Strengthen upper floor by placing a girder beneath joists, girder to run at right angles with joists and under the center of span of same, girders to be supported by either columns or hog chain; provide efficient means for extinguishing fire throughout building, to consist of either standpipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 12—Butler Street School (Bryan), June 15, 1896—Provide better means of egress from build. ing by converting the third and fourth windows from west corner into doors, same to be four feet wide and break in center, hung on inside of wall so that when opened they will not project beyond outside easing; at proposed doors provide a landing of sufficient length to take in both doors, with a flight of seven-inch rise and ten-inch tread stairs to descend east and land on solid footing stone at ground, landing and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by this department; change exit doors to open outward; provide substantial hand-railings on both sides of stairways; pace three tie-rods through east and west walls, one near north and one near south wall, and one in center, tierods to be located at second floor and to extend clear through building with a sixinch washer and nut on outside drawn up tight; also six tie-rods through north and south wall, one to be near east wall, one near west wall and four to be placed equal distances between, tie-rods to be located at second floor and to extend clear through walls with six-inch washer and nut on out-side drawn up tight; also two tie rods through east and west walls, one to be placed close to north wall and one close to south wall, and additional rods through north and south walls, one near east and one near west wall, rods to be located near top of wall and to extend clear through building with a six-inch washer and nut on outside drawn up tight; all tie rods to be made of one and one-fourth inch round iron; tower of building must be taken down to timber and placed on top of partition wall, as tower is leaning and liable to fall; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially complied.



- No.18—Central School (Bryan), June 15, 1893—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled and certificate issued.
- No. 14—Cherry Street School (Bryan', June 15, 1893—Provide better means of egress from building by converting second window from south corner into a door, same to be four feet wide and open outward; at door provide a landing six feet long, with a flight of seven-inch rise and ten-inch tread stairs to descend northward to ground, landing on a soild footing stone: baleony and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by this department; place substantial hand-railings on wall sides of stairways; change exit door on first floor at west end of hall to open outward; provide efficient means for extingnishing fire, throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 15—South School (Bryan), June 15, 1896—Provide better means of egress from building by cutting a doorway in south wall near southwest corner, door to be four feet wide and to open outward; at door provide a landing six feet long, with a flight of severinch rise and ten-inch tread stairs to descend eastward to the ground, balcony and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by this department; place substantial hand-railings on wall side of all stairways; connect top and bottom bolts of door with iron rod, with handle of sufficient height above floor so a child can open door; provide efficient means for extinguishing tire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 18—East End School (Cambridge), February 4, 1896—Change outside exit doors to open outward: I would advise you to make double doors of them, breaking in center and to swing both ways; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 19—South Side School (Cambridge), February 4, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 21—Cecil Special District School (Cecil), October 19, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported compiled.
- No-22—Dormitory. Ohio State University (Columbus), September 25, 1896—Provide better means of egress from building by erecting fire-escape on west end balconies at fourth and third floors to take in window of room on north and south sides of hall, balconies to be of sufficient length to accommodate a flight of eight-inchrise and eight-inch tread stairs between, and from balcony at third floor a flight of stairs to come down to within ten feet of ground; at bottom of stairs a landing not less than two feet long supported by bracket; on the south wing of building provide a similar fire-escape, balconies at fourth and third floors to take in window on east and window on west side of hall and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from balcony at third floor a flight of stairs to come down to within ten feet of the ground with a landing two feet long to rest on bracket anchored through wall; escape to be constructed according to specifications furnished by this department. Order complied with.
- No. 24—Columbus Grove Public School (Columbus Grove, October 30, 1896—Provide substantial hand-railings on wall sides of all stairways; efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 28—Marice City Public School (Continental P. O.), October 17, 1896—Provide substantial hand railings on wall sides of stairways, from top to bottom; remove first desk in southwest corner of high school room, desk conflicts with door leading to hat and cloak room; basement of building is very damp and should be graded, especially in portion where cold air rooms are located; change drainage from down spouting so that spouting will enter tiling and carry water away from building; basement should either be floored over, cemented or covered with coal cinders; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.



- No 29—Cridersville Special District School (Cridersville)—May 18, 1896—Provide new floors throughout the building; a column with cross-beam on top under center of floor of each upper room to support floor and make joists more rigid, one column in each room; efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 80—Dague Special District School (Dague)—October 20, 1896—Provide additional supports under floor of room that is occupied and used for school purposes, floor is sagged in center; repair plastering where it has fallen off; change exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported compiled.
- No. 31—Fourth Ward School (Defiance)—April 9, 1896—Place substantial hand-railings on wall side of all stairways; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially complied.
- No 39-Frame School (Defiance)—April 9, 1896—Change all exit doors to open outward. Not reported complied.
- No 33—High School (Defiance)—April 9, 1896—Provide better means of egress from building by converting window at stage on Clinton street side into a door, door to be four feet wide and break in center and arranged so it will not extend beyond casing when opened, at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend to an easy or landing at second floor, thence to the ground, landing and stairs to be forty-two inches wide and constructed in accordance with the specifications furnished by department; provide columns under stairs, columns to be made of iron either solid or gas pipe: place substantial hand-railings on wall sides of all stairways; provide efficient means for extinguishing fire through, out the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No 34—Our Lady of Perpetual Help School (Defiance)—April 9, 1896—Provide substantial handrailings on wall sides of all stairways and efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported compiled.
- No. 35—Second Ward School (Defiance), April 9. 1896—Provide an outside iron-stairway on the southeast end of building to afford better means of egress and convert the first window from east corner into a door, door to be four feet wide and to open outward, at door provide a landing five feet long with a flight of eight-inch rise and eight-inch tread stairs to descend to the ground and land on a solid footing stone, landing and stairs to be not less than three feet wide and constructed in accordance with the specifications furnished by department with the exceptions spoken of in order; place four tie-rods one and one-fourth inch round iron through side walls at second floor equal distance, apart, with a six-inch washer and nut on outside drawn up tight; place substantial hand-railings on wall sides of all stairways; change all exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially complied.
- No. 36—Third Ward School (Defiance)—April 9, 1896—Provide better means of egress from building by converting the two windows on the east side of building at end of cloak rooms into doors, door in south cloak room to open outward and door in north cloak room to break in center and hung on inner side of wall, so that when doors are opened they will not project beyond outside of casins; provide a landing of sufficient length to take in both proposed doors, from landing a flight of stairs seven-inch rise and ten-inch tread to descend to the ground, landing and stairs to be forty-two inches wide and constructed in accordance with plans and specifications furnished by department; provide a doorway in southeast corner of west room to tower-room, also a doorway from tower-room to southeast room so that scholars from west room can gain access to fire-escape without entering hall; place substantial hand-railings on wall side of stairs and provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially complied.



- No. 87—Jefferson Street School (Delphos)—April 15, 1896—Provide substantial hand-railings on wall sides of all stairways: change all exit doors to open outward: provide chains on doors to connect top and bottom bolts of doors together, with handle in center, so that both bolts can be opened at the same time; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 88—Central School (East Liverpool).—September 4, 1896—Provide better means of ascent and descent from tower by constructing stairway from top to bottom; stairway to be provided with substantial hand-railing; complete all floors in tower and supply a sufficient number of joists to make all floors of tower safe. Order complied with and coertificate issued.
- No. 39—East Palestine School (East Palestine).—March 5, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire throughout building to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled and certificate issued.
- No. 40—High School (Edgerton) July 2?, 1896—Place two tie-rods through north and south walls of old portion of building close to east wall, one located at second floor and one near the ceiling, tie-rods through east and west walls near south wall, one at second floor and one near ceiling, tie-rods to be made of one and one-fourth inch round iron, extending clear through the wall, with a six-inoh washer and nut outside drawn up tight; remove plank from beneath foundation and replace with stone and cement, this can be done by jacking up foundation in sections, filing up with stone and cement, section at a time; provide substantial hand-railings on both sides of stairs running east and west; in old portion of building remove strips used for hanging wraps, etc., on at head of stairs on second floor; repair roof where it leaks; connect down spouting from roof with drain tile so that the water can be carried away from foundation; connect the top and bottom bolts of exit doors with iron handles or chain, with handle in center, so that both can be drawn at the same time; provide efficient means for extinguishing fire through the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 41—Elmore Special District School (Elmore)—December 20, 1896—Put in a brick or cement floor in two basement rooms in east end of building used as play-rooms: provide substantial hand-rallings on wall side of all stairways; brace up present hand-railings to make them more rigid as per instructions of Inspector; change all exit doors so they will open out-ward; connect top and bottom bolts of double doors with chain or lever so the doors can be opened readily; do not lock or bar doors during school hours; provide two three-fourths inch iron rods through outside stairs and wall to draw stairs up to their original position against wall rods to be placed at equal distance apart between upper and lower landings of stairs: remove broken stone water tables directly over doorway to boiler-room in basement; repair wall at that point and place an I-beam over doorway; remove all loose plastering from celling and repair; brace up trusses supporting roof; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 42—Felicity Village School (Felicity)—January 22, 1896—Provide efficient means for extinguishing fire by placing on each floor one three gallon extinguisher or two two gallon extinguishers; place hand-railing on the wall side of each stairway and hand-railing from the end of balustrade to top of stairway on opposite side of wall. Not reported compiled.
- No. 43—Primary School (Geneva)—February 25, 1896—Change all exit doors to open outward: place substantial hand-railings on outside stairs; keep passageway to stairway clear of obstructions at all times; provide efficient means for extinguishing fire, to consistof either stand-pipes and hose or some recognized chemical extinguisher. Order reported compiled.
- No. 44—Normal School (Geneva)—February 25, 1896—Provide better means of egress from gymnasium located on third floor by erecting an outside iron stairway on west side of building, balcony at third floor to take in two south windows, with a flight of seven inch rise and ten-inch tread stairs to descend to ground and land on a solid footing stone; balcony and stairs to be forty-two inches wide and constructed in accordance with the plans and specifications furnished by department: place substantial hand-railings on each side of stairway leading to gymnasium Order reported compiled.



- No. 45-Old Normal School (Geneva)—February 25, 1896—Change all exit doors to open outward.

  Not reported complied.
- No. 47—District School No. 5 (Harrison)—July 14, 1896—Change two doors in front room of old building on first floor and two doors on second floor to open outward: provide substantial hand-railings on wall sides of all stairways: efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and nose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 54—St. Joseph School (Ironton)—August 29, 1896—Change double doors in hall of school building to open outward; supply at least one hydrant on each floor with threaded faucet and sufficient length of hose to be hung in close proximity to hydrant to reach anywhere on same floor to be used in case of fire. Order (complied with and certificate issued.
- No. 56—St. Lawrence School (Ironton)—August 29, 1896—Provide at least one hydrant on each floor with threaded faucet and sufficient length of hose to be hung in close proximity to hydrant to reach anywhere on same floor, to be used in case of fire. Order compiled with and certificate issued,
- No. 58—Jefferson Educational Institute (Jefferson)—January 4, 1896—Provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 59—Lower Grade School (Jefferson)—January 4, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 60—Central School (Kent)—August 6, 1896—Repair brick work around furnace; place asbestos felt or some other fire-proof material between furnace and joists. Order complied with and certificate issued.
- No. 61—Killbuck Public School (Killbuck), August 14, 1896—Building is in very bad condition, siding is much decayed, timbers resting on foundation are in bad condition, many of the window sills entirely rotted away, floors sagged badly; plastering falling off, and in general the building is in a very dilapidated condition and unfit for school purposes, and would therefore recommend that it be abandoned. New building being constructed.
- No. 62—Latty Special District School (Latty), October 20, 1896—Provide a floor in basement to extend from stairs to boys' water-closet, then floor over ground inside boys' closet; floor in girls' water-closet in basement; efficient means for extinguishing fire through; out the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially complied.
- No. 65—Elizabeth Street School (Lima), April 27, 1896—Change all exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 68—Garfield School (Lima). April 27, 1896—Provide better means of egress from building by erecting a fire-escape on the east end, balcony at third floor to take in one window of each room, balcony at second floor to take in corresponding windows, with a flight of eight-inch rise and eight-inch tread stairs between twenty-one inches wide, and from the balcony at second floor a flight of eight-inch rise and eight-inch tread stairs, forty-two inches wide to descend to the ground, escape to be constructed in accordance with the specifications furnished by department except as mentioned in order; change all exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 67—Grand Avenue School (Lima), April 27, 1896—Change all exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 68—Pine Street School (Lima), April 27, 1896.—Change all exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.

- No. 69—Spring Street School (Lima), April 27, 1896.—Change all exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 70—West End School (Lima), April 27, 1896.—Provide better means of egress from building by erecting an outside iron stairway on the east end, balcony at third floor to take in first window from south corner, with a flight of seven-inch rise and ten-inch tread stairs to descend northward to an easy or landing at second floor, thence to the ground, landings and stairs to be forty-two inches wide and constructed in accordance with the specifications furnished by department; change all exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. In August another inspection was made of this building and it was found to be in a dangerous condition, and an order issued to immediately abandon same. Not reported compiled.
- No. 71—Union School (Lima), July 14, 1896.—Change exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 74—Melrose Special District secool (Lima), October 20, 1896.—Connect top and bottom bolts of doors with rod or chain, so that both doors can be opened at any time; provide efficient means for extinguishing fire throughout building, to consist of either standpipes and hose or some recognized chemical extinguisher. Not reported compiled
- No. 75—Central School (Middletown), February 12, 1896.—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 76—Holy Trinity School (Middletown), February 12, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported compiled.
- No. 77—North School (Middletown), February 12, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 78—St. John School (Middletown), February 12, 1896.—Change exit doors to open outward, and provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported compiled.
- No. 79—Sherman Street School (Middletown), February 12, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 80—South School (Middletown), February 12. 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied and certificate issued.
- No. 88—Brick School (Montpelier) July 14, 1896—Provide substantial hand-railing on wall sides of all stairways; connect top and bottom bolts of exit doors with iron rod or chain with handle in center, so that both can be drawn at the same time; efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.
- No. 84—Frame School (Montpelier), July 14, 1896—Provide substantial hand-railings on both sides of stairways from top to bottom; change exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either standpipes and hose or some recognized chemical extinguisher. Not reported compiled.



- No. 85—Morrow Public School (Morrow), November 30, 1896—Provide better means of egress from building by erecting fire-escape on the south side, balcony to take in west window of east room and east window of west room, with a flight of eight-inch rise and eight-inch tread stairs to descend westward to the ground and land on solid footing stone; all but six feet of balcony can be twenty-four inches wide, balance must be forty-two inches from the starting point of stairs; at north end of building provide a fire-escape, balcony at second floor to take in the west window, with a flight of eight-inch rise and eight-inch tread stairs to descend eastward and land on a solid footing stone at ground; balcony to be forty-two inches wide and stairway to be twenty-one inches; escape to be constructed in accordance with specifications furnished by department. Order complied with and certificate issued.
- No. 86—District School No. 9 (North Lawrence), February 24, 1896—Provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 87—Baldwin Hall. Oberlin College (Oberlin), January 21, 1896—Provide better means of egress from building by erecting a balcony stairway fire-escape on the north side of building, balcony at third floor to take in first window from east corner or window facing northwest from tower-room, extend west and take in third window from said corner, balcony at second floor to take in corresponding windows, with a flight of eight-inch rise and eight-inch tread stairs between; on the south side provide an escape, balcony'at third and second floors to take in two east windows, with a flight of eight-inch rise and eight-inch tread stairs between; provide doors to connect all rooms on south side of building with fire-escape: change all exit doors to open outward. Not reported complied.
- No. 88—Council Hail, Oberlin College (Oberlin), January 21, 1896—Place a hand-railing on outer edge of roof gutter around front and sides of building to court in rear; in court in northeast or northwest inverted angle, provide stairs to descend and land on roof below, stairs to be as near eight-inch rise and eight-inch tread as possible and constructed in accordance with our stairway specifications; provide life-lines or ropes in each room above second floor having window openings, ropes to be securely fastened on the inside and to be of sufficient length to reach the ground; change all exit doors on first floor to open outward, and all doors leading to stairs to awing both ways; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.
- No. 89—Library Building, Oberlin College (Oberlin), January 21, 1896—Change all exit doors so they will open outward; provide efficient means for extinguishing fire throughout building to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.
- No. 90—Lord Hall, Oberlin College (Oberlin), January 22, 1896—On south side of building erect an escape, balcony at third floor to take in third window from southwest corner, with a flight of eight-inch rise and eight-inch tread stairs to descend westward and land on roof of porch; on rear or east end of building, provide an escape, balcony at third floor to take in second, third and fourth windows from southwest corner, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of ground to an easy or landing at one window of room on second floor; cut a doorway from room in northwest corner on third floor to adjoining room facing west; provide an iron ladder from window in room on third floor directly over front porch, ladder to extend from window to porch; connect all front rooms with said room; change all exit doors to open outward. Not reported compiled.
- No 91—Peter's Hall, Oberlin College (Oberlin), January 21, 1896—Cut a doorway from draftingroom to hall of society-room on north side of building on third floor; provide close fitting doors in arch in west end of stair hall on third floor, doors to swing both ways. Not reported complied.
- No. 92—Tollcott Hall, Oberlin College (Oberlin) January 21, 1896—Provide better means of egress from building by erecting a fire-escape on the rear or west end of building, balcony at third floor to take in window in west end of hall, with a flight of eight-inch rise and eight-inch tread stairs to descend and land on roof of porch over reardoor, from roof of porch provide a stairway to descend northward to a level with floor of porch; at



No. 92-Tollcott Hall, Oberlin College (Oberlin)-Concluded.

fourth floor at east end of hall or open attic, provide a partition to be made of matched lumber with close fitting doors; cut an opening in floor near middle wall of building and provide an additional stairway from fourth to third floors; a casing to enclose stairs with door at foot of same, door to be provided with spring to keep it closed; place springs on all doors leading to and from stairs; at third floor provide doors at east end of hallway running from middle of building west; connect rooms 24. 25, 26 and 27 by doorways; provide a stairway from one of said rooms to descend to stone-room or balcony below; on second floor place doors at east end of hallway running west; cut a doorway through south wall on first floor at foot of stairs, door to be used as an exit; change all exit doors so they will open outward. Not reported compiled.

- No. 98—Warner Concert Hall—Oberlin College—(Oberlin), January 21, 1896—Provide a flight of stairs forty-two inches wide, seven-inch rise and ten-inch tread from northeast corner of balcony floor to descend eastward and land in entrance hall on first floor, stairs to be constructed of wood and to take the place of stairs ordered on north side of building. Not reported compiled.
- No. 94—Warner Hall—Oberlin College—(Oberlin), January 21, 1896—On the north-side of building provide a fire-escape, balconies at third and fourth floors to take in window nearest to west end of building, balcony to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between and from the balcony at third floor a flight of stairs to come down to within ten feet of the ground; change exit doors to open outward. Not reported complied.
- No. 95—District School No. 5 (Osnaburg), August 11, 1896—The roof is in bad condition, having openings in it one inch wide in many places, allowing rain to come through and loosen plastering causing same to fall off; walls are out of plumb, inner and outer courses of brick seem to be separated from one another, and the building in its present condition is unfit for school purposes and would recommend that you abandon the building for such use as it would be impossible to suggest means whereby the building could be made safe and fit for the purpose for which it was intended. New building erected.
- No. 96—Frame School (Paulding), July 24, 1896—Support chimney with a solid foundation, instead of present support (bracket): place a substantial foundation under building: this can be done by raising the building and removing all decayed and damaged timber and substituting with new; change all exit doors to open outward. Complied all but chimney support.
- No, 97—Union School (Paulding). July 24, 1896—Provide substantial hand-railings on wall sides of stairs: connect top and bottom bolts of exit doors with iron rod or chain, with handle in center, so that both can be drawn at once: remove all oils and oil barrels and other combustible material from under stairway: remove two doors on first floor and two doors on second floor at south end of cloak room, located on north side of building, as doors interfere with exit doors of school room: thoroughly drain basement by putting in tiling and connect the same with sewer located in school grounds; raise school yard up so that surface water will run away from building: repair and put in good condition all down spouting and connect same with tiling so as to take water away from foundation: provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied.
- No. 98—Payne Separate District School (Payne), October 2, 1896—Provide better means of egress from south wing of building by converting the west window in east room into a door, same to open outward; convert east window in west room into a door, same to be made sliding or to break in center and hung on inside of wall so that when opening it will not project beyond the outside of, at proposed doors provide a landing from one door to the other and from landing a flight of seven-inch rise and ten-inch tread stairs to descend westward to the ground, landing and stairs to be forty-two inches wide and to be constructed of hard wood and covered to keep out rain and snow; in order that pupils in the east and west rooms, in north portion of building, can reach outside stairs, it will be necessary to cut a doorway between the west and east rooms, door to open southward: provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as compiled.

- No. 99—Pioneer Village School (Pioneer), July 24, 1896—Provide substantial hand-railings on wall sides of stairways; connect top and bottom bolts of doors with iron chain or rod, with handle in center, so both can be drawn at same time: the outside stairs are in bad condition and should be repaired and made so that egress can be had from stairs; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 100—Chesapeake Special District School (Rockwood), July 23, 1896—Building in a very bad condition, the walls cracked and spreading and in its present condition is unsafe; recommend that the building be abandoned for school purposes without delay. New building being constructed.
- No. 108—Salineville Public School (Salineville), February 26, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Use of second floor discontinued.
- No. 104—Scott Village School, Scott)—June 3, 1893. Provide better means of egress from building by converting the fourth and fifth windows from east corner into doors, same to be four feet wide and break in center, and to be hung on inner side of wall, so that when opened they will not project beyond door casing: at proposed doors provide a landing, and from landing a flight of seven-inch rise and ten-inch tread, stairs to descend westward to the ground, landing and stairs to be forty-two inches wide and constructed in accordance with specifications furnished by this department; place substantial hand-railings on all stairways; repair down spouting and connect same with tiling so as to convey water from foundation of building; repair floor of porch at rear exit; remove all loose plastering of ceiling on first floor and repair same; remove oil cans and old rubbish from under stairways, and in future keep no combustible material under stairways; provide efficient means for extinguishing fire throughout the oulding to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 105—Sharon Center Public School (Sharon Center)—April 13, 1896—The south end of building leans about one foot to the east: foundation at southeast corner is in bad shape; building in general is very much dilapidated and it is impossible to suggest any means whereby it could be repaired and made safe, and therefore recommend that you abandon the building for school purposes. New building being constructed.
- No. 106—Spring Hill Special District School (Spring Hill), December 5, 1896—Provide an 8x8 inch girder of oak beneath second floor joists and support girder by four columns 7x7 inch with T-cap four feet long on each column. T-caps to be 8x6 inches, columns to rest on a solid stone wall or foundation, girder to be placed near the center of joists; boit two iron plates three inches wide three-eighths of an inch thick and two feet long on east end of girder, on each side, with a seven-eighths inch bolt fastened to plate and extending through east wall, with an iron plate and nut on the outside; by doing this you can draw the east wall back to its proper place; repair spouting and connect same with tiling, so that water can be conveyed from foundation of building; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order comp'ied with and certificate issued.
- No. 107—Sub-District School No. 7 (Twin), June 3. 1896—Building very old, walls considerably cracked and damaged near north end: foundation very shallow, made of brick and building generally in bad condition, and would therefore recommend that building be abandoned and new one erected; however, if you desire to repair building, it will be necessary to take down the north wall and a portion of the east and west walls as far south and including first window, and rebuild, then place tie-rods through the building north and south, one near each corner, and one east and west near south corner, tie-rods to be made of one inch round iron and extend clear through building with a six-inch washer and nut on the outside drawn up tight; floor in school room is almost entirely worn out and should be replaced with a new one; roof is worn out and a new one is necessary. New building being constructed.
- No. 108—Central High School (Van Wert), May 31, 1896—Provide better means of egress from building by converting the first window on south side from east corner into a door four feet wide, same to open outward, at door provide a landing six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend westward to an easy



- No. 108-Central High School (Van Wert)-Concluded.
  - or landing on a level with second floor, thence to the ground, landing and stairs to be forty-two inches wide; from top balcony an iron ladder made rigid to same and to extend to roof, stairway to be constructed in accordance with specifications furnished by this department; place substantial hand-railings on wall sides of all stair ways; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes or hose or some recognized chemical extinguisher. Reported partially complied.
- No. 109--East School (Van Wert), May 31, 1896—Provide substantial hand-railings on wall sides of all stairways; change exit doors to open outward and provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose of some recognized chemical extinguisher. Partially compiled.
- No 110—Second School—(Van Wert), May 31, 1896—Provide substantial hand-railings on wall sides of all stairways; strengthen second floor by placing hog chains at right angle under center of joists or by putting in girder with proper column supports; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 111—Waldo District School (Waldo), July 14, 1896—Building is in a very bad condition; plastering, siding, flooring and roof bad; building sets too near ground, causing floor to become damp; in fact building is unfit for use for school purposes; would therefore
  recommend that it be taken down and a new one built in its stead. Building repaired
  so school could be held for nine months, when new building would be erected.
- No. 118—Central School (Wellsville), March 5, 1896—Thoroughly cleanse and disinfect waterclosets and keep same in good sanitary condition: would suggest that you provide cement floors in closets instead of wood. Order complied with and certificate issued.
- No. 114—East End School (Welisville), March 5, 1896—Provide better means of ventilation by building stacks higher or placing a fan in stacks to increase draught. While we have no direct jurisdiction to compel your Board to comply with the above order, we would suggest that you carry said order into effect. Order complied with and certificate issued.
- No. 117—West Unity District School (West Unity), July 14, 1896.-Change exit doors to open outward; connect top and bottom bolts of main exit doors with chain or rod, with handle in center, so they can both be opened at the same time: provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 118-Willshire Special District School (Willshire), June 3, 1896-Provide better means of egress from building by cutting doorway in south wall at southwest angle, also a doorway in west wall near angle, doors to be four feet wide and to break in center and open outward, and hung in such manner that they will not project beyond outer side of wall of building, at proposed doors provide a landing six feet square, within a flight of seven-inch rise and ten-inch tread stairs to descend westward along south wall to the ground, stairs to be forty-two inches wide and constructed in accordance with the specifications furnished by this department; change all exit doors to open outward; provide substantial hand-railings on wall sides of stairs; place four tie-rods through east and west walls, one to be close to north wall and one to south wall, and two to be placed equal distances between, rods to be located at second floor, also one to be placed close to north wall and one close to south wall near top of walls: one tie-rod through north and south walls near east wall at second floor, also one above and near top of wall, tie-rods to be made of one and one-fourth inch round iron and to extend clear through walls with a six-inch washer and nut on outside drawn up tight: repair down spouting; connect down spouting with tiling so as to convey water from foundation of building: provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.
- No. 119--Smith Place School (Wilmington), March 12, 1896—Provide better means of egress from building by erecting aftre-escape on north end, balcony to take in west window in in east room and east window in west room, balcony from window in east room to be twenty-four inches wide and the portion taking in window in west room to be



No. 119—Smith Place School (Wilmington)—Concluded.

sixty-six inches wide to descend eastward and land on a solid footing stone; the portion of balcony sixty-six inches wide must be supported by columns; on the south end of building provide fire-escape, balcony to take in second window from east corner and to be forty-eight inches long and forty-two inches wide, with a flight of eight-inch rise and eight-inch tread stairs, to descend westward and land on solid footing stone, stairs to be forty-two inches wide; escapes to be constructed in accordance with specifications furnished by this department, with exception of rise and tread of stairways, which is to be eight-inch rise and eight inch-fread, to prevent running past corners of building; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.

- No. 120—Wooster High School (Wooster). September 4. 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied.
- No. 121—Briar Hill School (Youngstown), May 6, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.
- No. 126—St. Anne Parochial School (Youngstown), May 6, 1896—Change all exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported compiled.
- No. 127—St. Columbia Parochial School (Youngstown), May 6, 1896--Place fire extinguisher in a position easier of access. Not reported complied.
- No. 128—St. Paul Parochial School (Youngstown', May 6, 1896—Provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order reported complied with and certificate issued.

TABLE XVII-OPERA HOUSES AND THEATERS INSPECTED DURING FISCAL YEAR

### ENDING NOV. 15, 1896.

For order see corre- sponding number tol- lowing this table.	-004566	87785778 87785778	# 28 # 28 # 28 # 28 # 28 # 2
Seating capacity.	63321 6320 6320 6320 6320 6320 6320 6320 6320	55 8 8 9 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	2000 2000 2000 2000 2000 2000 2000 200
Means of extinguishing fire.		Stand-pipes and hose Chemical extinguishers stand-pipes and hose Chemical extinguishers None Stand-pipes and hose Chemical extinguishers None None	Stand-pipes and hose  None Chemical extinguishers  None  Chemical extinguishers
Means of lighting.		Cli iamps  Electricity Gas Gas and electricity Oil lamps Gas	Electricity Oil lamps Electricity Glasmps Oil lamps Electricity Cillamps Electricity Electricity
Means of heating	Steam	Stoves Steam Hot air Air&st Hot air Steam Hot air Steam Eot air Steam	Hot alr Stoves Hot air Steam Steam Steam Hot air
Location.	Cleveland Conneaut Deflance Continental F. O. Wellsville	Canal Futon Portsmouth Portsmouth Salem Columbus Greenfield Granbridge Hillsboro Ironton Poulding Deflance	Kent City Oho City Pioneer Delphos Astribula Stryker Lorain Payne
Name of owner.	Montpelier Estate Harry Huchins E. E. Baldwin G. Moss H. Cooper A. H. Day Mesdames H. Bayard, Thomas	Valuans and Mr. B. Schrader J. P. Gasser. Portsmouth Grand Op. House Co. Great Southern Hotel Co. City of Greatelle Savings & L. Asvn. Co. C. S. Bell. F. and A. M. Standard A. M. B. shore. Mustard and Tate B. shore. Mustard and Tate L. E. Myers and Mary J. Stoutt.	Stauter and Win Johnson. William Heath. William Heath. F. Emith. J. L. Smith. F. B. Wagner F. B. Wagner J. A. Woolard
Name of house.	Academy of Music Auditorium Theater. Baldwin Opera House Citizens Opera House Continental Opera House Day's Opera House Day's Opera House Pulton Opera House	Grand Opera House. Grand Opera House. Grand Opera House. Great Southern Theater Greanfi-1d Opera House. Hammonds Opera House. Hillsboro Opera House. House Opera House. Model Opera House.	New Theater Onlo City Opera House Ploneer Opera House Sheeter's Opera House Sirpker Opera House Siryker Opera House Willoughby Opera House Woolard's Opera House
Number.	-0184456	9011287129	84888888 <b>2</b>

### OPERA HOUSES AND THEATERS.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 1—Academy of Music (Cleveland)—Montpelier Estate, Jas. J. Gannon, Prop.—February 5, 1896—Found to conform to the law and certificate of inspection issued.
- No. 2—Auditorium Theater (Cleveland)—Harry Hutchins—February 11, 1896—From the box room on south side of building, in southwest corner, cut a doorway and provide a stairway therefrom to descend into dressing-room used by males; widen the door at end of vestibule on first floor to the width of the two doors opening from auditorium; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher; if extinguishers, four should be provided, one on stage, one near the entrance, one on the north and one on the south sides of gallery. Order complied with and certificate of inspection issued.
- No. 8—Baldwin Opera House (Conneaut)—E. E. Baldwin—January 23, 1896—Change all exit doors leading from opera house to open outward; remove all obstructions from outside stulrways and keep them clear of obstructions at all times; mark all exits with the word "exit;" provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate of inspection issued.
- No. 4-Citizens' Opera House (Defiance —B. F. Enos, Receiver—April 9, 1896—Provide two gaspipe columns under platform of double landing of stairs, to extend to ground and land on solid footing, as the brackets supporting platform are not sufficient to bear the weight that might be placed on stairs; provide efficient means for extingulahing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate of inspection issued.
- No. 5—Continental Opera House (Continental P. O.)—G. Moss—October 17, 1896—Provide a double doorway inside of opera house, to be the same width as outside door; efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported complied.
- No. 6—Cooper Opera House (Wellsville)—H. Cooper—February 25, 1896—Found to conform to the law and certificate of inspection issued.
- No. 7—Days' Opera Honse (Columbus Grove)—A. H. Day—November 10, 1896—Provide better means of egress from balcony by erecting a flight of stairs on the west side, similar to those on the east side: make a passageway, the same width of the stairs, leading to alley at northwest end of stage, the present doorway leading to passageway to be made the same width of the stairs, place substantial hand-railings on stairway; remove sixth row of seats in auditorium or number 47 to 57 inclusive, making a passageway through auditorium to main exit; also remove a row of seats along the north-west wall to make a passageway from stairs to be erected for balcony; stove on west side of building should be moved eastward to give room for egress; provide substantial hand-railings on both sides of main stairway; remove the rubbish and other combustible material from under main stairway; provide efficient means for extinguishing fire throughout opera house, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate of inspection issued.
- No. 8—Fulton Opera House (Canai Fulton)—Bevard, Williams & Schrader—February 24, 1896—Change doors leading to street to open outward; keep stairway clear of obstructions at all times; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Compiled with exception of providing means for extinguishing fire.

- No 9—Grand Opera House (Paulding)—J. P. Gasser—August 4, 1896—Provide substantial handrallings on both sides of stairs from gallery to auditorium; connect top and bottom
  bolts of exit doors with iron rod or chain with handle in center, so that both bolts
  can be drawn at the same time; provide efficient means for extinguishing fire
  throughout opera house, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Partially compiled.
- No. 10—Grand Opera House (Portsmouth)—Portsmouth Grand Opera House Co.—March 26, 1896—
  Found to conform to the law and certificate of inspection issued.
- No. 11—Grand Opera House (Salem)—B. S. Ambler—April 7, 1896—Found to conform to the law and certificate of inspection issued.
- No. 12—Great Southern Theater (Columbus)—L. M. Roda, Manager—September 29, 1896—Change door at head of stairway on west side of hall leading to gallery to open outward, door and stairs to be kept clear of obstructions and open at all times when gallery is occupied. Order compiled with and certificate of inspection issued.
- No. 18—Greenfield Opera House (Greenfield)—City of Greenfield—Charles Mains. Mayor—October 7, 1896—Change exit doors leading to street to open outward. Not reported compiled.
- No. 14—Hammond's Opera House (Cambridge)—Zanesville Savings and Loan Association—January 30, 1896—Found to conform to the law and certificate of inspection issued.
- No. 15—Hülsboro Opera House (Hillsboro)—C. S. Bell—August 19, 1896—Found to conform to the law and certificate of inspection issued.
- No. 16—Ironton Opera House (Ironton)—Lawrence Lodge No. 198, F. and A. M.—August 5, 1896—Found to conform to the law and certificate of inspection issued.
- No. 17—Model Opera House (Paulding)—Bashore, Mustard & Tate--August 4, 1896—Provide substantial hand-railings on wall side of stairway located at west end of building leading from auditorium to gallery; repair hand-railings on stairs leading to street in east end of building; connect the top and bottom bolts of double exit doors with iron rod or chain with handle in center, so that both bolts can be drawn at the same time; provide additional means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher; would suggest that you provide two additional. Abandoned for opera house purposes.
- No. 18,-Myer's Opera House (Defiance)-L. E. Myers and Mary J. Stout-April 9, 1896--Provide better means of egress from building by erecting an outside iron stair-way on the southoralley side and cutting doorway through the side wall on a level with balcony floor, door to be four feet wide and to swing outward, at door provide a landing six feet long, forty-two inches wide with a flight of seven-inch rise and ten-inch tread stairs to descend to a landing on a level with second floor, thence to the ground; the landing at second floor to take in the door of the present wooden fire-escape, which must be removed entirely; balconies and stairs to be constructed in accordance with specifications furnished by this department; the door at balcony floor must be located so as to give the proper rise and tread of stairs to balcony at door at second floor; if you cannot get permission to land outside stairs on the ground, it will be necessary to provide hinges in stairs and break ten feet from ground, lower portion of stairs to be held up by counter-balance weight; straighten up trusses of building, they have sagged down some two or three inches and should be attended to; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Opera house closed.
- No. 19—New Theater (Kent)—Davis, Herriff, Stauffer & Johnson—July 16, 1896—Found to conform to the law and certificate of inspection issued.
- No. 20—Ohio City Opera House (Ohio City)—William Heath—April 15, 1896—Place substantial hand-railings on both sides of front and rear stairs; change main exit doors from auditorium to swing outward and widen door at top of rear stairs to full width of stairway and hang same to open outward; change the door at bottom of stairs leading to yard to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate of inspection issued.



- No 31—Pioneer Opera House and Hall (Pioneer)—Pioneer Banking Co.—July 24, 1896—Remove present narrow wooden outside stairway and erect an iron stairway in its stead; widen the door at second floor to four feet, door to open outward, at door provide a landing not less than six feet long with a flight of seven-inch rise and ten-inch tread stairs to descend to the ground landing on a solid footing stone, landing and stairs to be not less than forty-two inches wide and constructed in accordance with specifications furnished by this department; support the balcony and stairs with iron upright columns so as to take as much weight off the walls as possible; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate of inspection issued.
- No. 22-Sheeter's Opera House (Delphos)-George Sheeter-April 15, 1896-Place substantial hand-railings on wall side of stairway leading from auditorium to Second street entrance, also on both sides of flight of stairs from balcony to auditorium leading to Canal street; hand-railings on wall sides of stairs on Canal street side of building, also both sides of stairs leading from auditorium to Canal street entrance; remove present fastening at head of stairs leading to Canal street, and if it is necessary to have door locked or tastened, it should be fastened on inside with bolt; remove obstructions at bottom of last named stairway, and if it is necessary to have the stair opening closed provide a door at the bottom of stairs, with bolt on inside, door to be hung to open out against wall; door on the Canal street side of building at auditorium floor is nailed up, this should be removed so that door can be used at any time; doors at stage floor, located at west end of building, should be hung to open outward; replace all damaged or missing treads of stairs; open up exit on Canal street and keep it so that occupants of building can get out at any time; place two more extinguishers in building, one in rear of auditorium and one in balcony. Partially complied.
- No. 23—Smith's Opera House (Ashtabula)—J. L. Smith—December 18, 1895—Found to conform to the law and certificate of inspection issued.
- No. 24—Stryker Opera House (Stryker)—John Mercer—July 22, 1896—Change exit doors to open outward: abandon the present gallery, as the building is in such condition that a large crowd in gallery might cause it to collapse; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguiser. Partially compiled.
- No. 25—Wagner Opera House (Lorain)—F. B. Wagner—December 31, 1895—Change main stairs to descend straight from auditorium floor, widen stairway to eight feet: provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate of inspection issued.
- No. 26—Willoughby Opera House (Willoughby)—David Law—February 29, 1896—Provide a fireescape on the rear or west side of building in place of iron ladder now in use, balcony to be located at second window from north corner, with a flight of eight-inch
  rise and eight-inch tread stairs to descend and land on roof of one story building; on
  the east side of building provide an escape, balcony at third floor to take in the
  second window from north corner, with a flight of eight-inch rise and eight-inch
  tread stairs to descend southward to a balcony to be placed at one window at second floor, thence to within ten feet of the ground, balconies and stairs to be twentyone inches wide constructed in accordance with the specifications mailed under
  separate cover; windows leading to fire-escape to be cut down to the floor and converted into doors to open outward in such manner as not to obstruct stairs; provide
  efficient means for extinguishing fire, to consist of either stand-pipes and hose or
  some recognized chemical extinguisher. Order compiled with and certificate of
  inspection issued.
- No. 27—Woolard's Opera House (Payne)—J. A. Woolard—October 2, 1896—Place substantial handrailings on wall sides of stairways, from top to bottom, on the Merrin street side of
  the building; cut a passageway through stage three feet wide along east wall to
  stairway located at south end of building, this will give egress from opera house to
  Main street, passageway to be cut down to a level with floor of opera house; change
  exit doors to open outward; provide efficient means for extinguishing fire throughout the building, to consist of either stand-pipes and hose or some recognized chemiextinguisher. Order compiled with and certificate of inspection issued.
- No. 28—Wright's Opera House (Bellevue)—John Wright—May 19, 1896—In rear part of building, used as gymnasium, provide three iron tie-rods, rods to be made of one and one-half inch round iron, and locate one at each corner and one in center of building, rods to extend through the building on top of truss girders with a six-inch washer and nut on the outside drawn up tight; fill cracks in east wall, where mortar is washed out, with good cement. Order compiled with except pointing up cracks.

TABLE XVIII—HOTEL BUILDINGS INSPECTED DURING YEAR ENDING NOVEMBER 15, 1896.

For order see corre- aponding number fol- lowing this table.	
Means of lighting.	Gas & electricity.  Gas & Electricity.  Gas & Electricity.  Gas & Electricity.  Gas & Electricity.  Gas & electricity.  Gas & electricity.  Electricity.  Gas & Electricity.  Electricity.  Electricity.  Electricity.  Electricity.  Electricity.  Gas & electricity.  Ul lamps.
Means of heating.	Stoves Steam Stoves Steam Stoves Steam Stoves Steam Steam Hot air Steam Hot air Steam Stoves Steam Stoves Steam Hot air Steam Stoves Steam Stoves Steam Stoves
Construction.	story brick  story brick  story frame  story frame  story frame  story frame  story brick & frame  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick  story brick
Location.	Harnesville Conneaut Hillsboro Xenia Conneaut Conneaut Deliance Ironcon Hilsboro Ironcon Ashtabula Ironcon Ironcon Ironcon Ironcon Deliance
Name of owner	Mrs. Melissa Albert.  C. W. Stines. D. W. Stines. D. C. Christ in & O. Eaton est Bryan Miles Dorman. Miles Dorman. Miles Dorman. Miles Dorman. Miles A. Field. W. R. Baker. W. R. Baker. W. R. Baker. W. S. Hoppingt. H. C. Burrellion. Mrs. C. Luppingt. H. C. Burrellion. Mrs. S. Hoppingt. H. C. Smith. R. S. Shepard. M. C. McCarty. G. H. Marsh. M. C. McCarty. G. M. M. C. McCarty. G. M. C. McCarty. G. M. C. McCarty. G. M. C. McCarty. G. McCarty. G. M. M. C. McCarty.
Name of hotel.	Albert House Central House Central House Christman Hotel Commercial Hotel Commercial Hotel Commercial Hotel Commercial Hotel Demison House Fisk Hotel Fisk Hotel Grand Hotel Forence Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Grand Hotel Hotel Central Hotel Commonwealth Hotel Christin Hotel Commonwealth Hotel Christin Hotel Frankin Hotel Frankin Hotel Frankin Hotel Marsh Hotel Marsh Hotel Marsh Hotel Marsh Hotel House New Eillott Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Lawrence Hotel Russell House
N uniform	

"See also No. 314. † See also 2014. † See also 2814.

### HOTELS.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 1—Albert House (Barnesville)—Mrs. Melissa Albert—Was inspected July 3, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 2—Central House (Conneaut)—G. W. Stines, was inspected January 3, 1895, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 3—Christman Hotel, (Bryan)--P. & G. Christman and O. Eaton Estate-August 4, 1896--Provide better means of egress from building by erecting fire-escape on the Bryan street side, balcony at third floor to take in one window in room No. 31, and one window in room No. 30, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground: from top balcony an iron ladder made rigid to same and to extend to roof; at south end of building abandon room No. 52 by removing the door from hinges and providing a flight of eight-inch rise and eight-inch tread stairs from roof of two story building adjoining down to roof of one story building, escape to be constructed in accordance with specifications furnished by this department; if you do not desire to abandon room No. 52 and erect a flight of stairs from two story roof to one story roof on southwest side of building, it will be necessary to provide balcony along front of building, commencing at room No. 49, extend north to room No. 31, taking in entire front of building; this balcony can be twenty-four inches wide, and guests occupying front rooms on third floor can pass along balcony from room No. 31 to fire-escape on the Bryan street side of building; however, if you abandon room No. 52, as spoken of above, you can leave this balcony off the front of building; the brackets supporting balcony of fire escape should extend through the wall and tie to joist; cut a window on south side of southwest corner room on third floor, also on south side of room No. 61 and No. 29 on second floor; provide better ventilation in kitchen of frame building by putting in one ventilator, ventilator to be made of galvanized iron and to be not less than eighteen inches in diameter, placed over large cooking stove with a bell-shaped hood a little larger than stove, extending down as close to stove as practicable, ventilator to extend up through ceiling and through roof with canopy top to keep out rain and snow; the plumbing is very bad and should be repaired at once, proper traps should be put in all wash-bowls, bath-tubs, urinals, etc. Escape erected and balance of order partially complied
- No. 8%—Order issued to S. J. Locke & Co.. Proprietor of Christman Hotel—Provide life-lines or ropes in all rooms above the first floor not directly connected with fire-escapes, same to be securely fastened on the inside and to be of sufficient length to reach the ground; place red lights in all halls leading to fire-escapes, same to be kept burning at all hours of the night, and placard the hall to read "red light leads to fire-escape," with hand pointing in the direction of escape. Compiled.
- No. 4—Clifton House (Hillsboro)—Jacob Urig—Was inspected August 21, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 5—Commercial Hotel (Xenia)—Wendel Bloom—April 10, 1896—Provide substantial hand-railings on stairs in kitchen; life-lines in all rooms on fourth floor and all rooms on third floor fronting on Detroit street, lines to be securely fastened on the inside and to be of sufficient length to reach the ground. Compiled.
- No. 6—Commercial House (Conneaut)—Miles Dorman—January 22, 1896—Provide better means of egress from building by erecting a fire-escape on the Broad street side, balcony at third floor to take in hall window, balcony second floor to take in corresponding window; balconies to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, and from the 'first balcony-above the ground a flight of stairs to come down to within ten feet of ground, escape to be constructed in accordance with specifications mailed under separate cover. Compiled.



- No. 7—Crosby House (Defiance)—Wm. Kirtley, Jr.,—April 2, 1896—Provide better means of egress from building by erecting a fire-escape on northeast end; balcony at third floor to take in window in end of hall, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground; at bottom of stairs a landing not less than two feet long supported by bracket; provide a similar fire-escape on the alley side of building, balcony at third floor to take in window in end of hall, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at bottom of stairs a landing not less than two feet long supported by bracket; escapes to be constructed in accordance with specifications furnished by this department; connect southeast wing of building with main building at third floor the same as it is connected at second; provide life-lines or ropes in each room not directly connected with fire-escapes, the same to be securely fastened on the inside and to be of sufficient length to reach the ground; place red lights in all halls leading to fire-escapes, the same to be kept burning at all hours of the night, and placard hall to read "red light leads to fire-escape," with a hand pointing in the direction of escape. Complied.
- No. 8—Cushman Hotel (Hillsboro)—Du Chemin Bros.—Was inspected August 21, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 9---Dennison House (Ironton)—Mrs. D. Massie—Was inspected August 7, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 10—Fisk Hotel (Ashtabula)—Miss A. A. Field—January 21, 1896—Provide better means of egress from building by erecting a fire-escape on the west end, balcony at third floor to take in window in west end of hall and one window in room No 17, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at the bottom of stairs a landing not less than two feet long and supported by bracket, escape to be constructed in accordance with specifications furnished by this department. Third floor abandoned; order held in abeyance.
- No. 11—Florence Hotel (Xenia)—W. R. Baker—April 10, 1896—Provide substantial hand-railing on stairway leading from kitchen; life-lines in all rooms on third floor, to be securely fastened on the inside of rooms and of sufficient length to reach the ground; remove door of room No. 57 and place a red light in room, same to be kept burning at all hours of the night and placard the hall to read, "red light leads to exit to flat roof, in case of fire;" where the buildings are joined together, anchor the walls together with tie-rods, rods to go through walls and fasten to joists: fill in next to foundation in order to turn waste water away from building. Compiled.
- No. 12—Grand Hotel (Xenia)—Andrew Fisher—April 17, 1896—Provide better means of egress from building by providing a window near the southeast corner of room No. 5 on third floor; also a window near the southeast corner of room No. 25 on second floor, balcony at third floor to take in proposed window in room No. 5, extend east and take in window in room No. 3, balcony at second floor to take in window proposed in room No 25, extend east and take in window in room No. 24, with a flight of eight-inch rise and eight-inch tread stairs between, and from the balcony at second floor a flight of stairs to come down to within ten feet of the ground: on the north end of the building provide fire-escape, balcony at third floor to take in east window of parlor "B," extend east and take in window in room No. 19; on second floor balcony to take in east window of parlor "A," extend east and take in one window of room No. 39, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of ground: at bottom of stairs of each fire-escape provide iron ladders of sufficient length to reach the ground, to be held up by hooks or counter-balance weight; from the top balconies iron ladder made rigid to same and to extend to roof; escapes to be constructed in accordance with the specifications furnished by this department; provide substantial hand-railing on rear stairway from second to third floor; safety device to catch elevator in case cable should break, would suggest double cables; automatic (self-closing) elevator gates at elevator openings on each floor. Not reported as complied.
- No. 13—Hoopes House (Carrollton,—W. S. Hoopes—Was inspected July 30, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 14—Hotel Central (Barnesville)—Mrs. C. Lippincott—Was inspected July 3, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.



- No. 15—Hotel Clifton (Lorain)—H. C. Burrell—January 7, 1896—Case in stair opening on third floor and provide tight fitting doors at head of stairs, doors to swing both ways; abandon room 15 on third floor and remove door of said room so as to afford an open passageway to fire-escape. Complied.
- No. 16—Hotel Commonwealth (Lorain)—Christopher Lewis—January 21, 1896—Provide life-lines or ropes in each room not directly over porch roof, same to be securely fastened on inside and to be of sufficient length to reach the ground. Complied.
- No. 17—Hotel Franklin (Lorain)—J. F. Smith—January 2, 1896--Provide better means of egress from building by erecting a fire-escape on the west end, balcony at third floor to take in window in room 54 with a flight of stairs to descend to within ten feet of the ground, at bottom of stairs a landing not less than two feet long supported by bracket; on the south side of building provide an escape, balcony at third floor to take in double window in room No 66, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground; at bottom of stairs a landing not less than two feet long supported by bracket, escapes to be constructed in accordance with specifications furnished by this department; provide an open passageway through rooms No. 54 and No. 66 so that guests can reach the fire-escapes through said rooms; life-lines or ropes in each room not directly connected with escapes, same to be securely fastened on the inside and to be of sufficient length to reach the ground; place red lights in halls leading to escape, same to be kept burning at all hours of the night and placard the hall to read "red light leads to fire-escape." with a hand pointing in the direction of escape. Building vacated.
- No. 18—Hotel Griffin (Lorain)—R. S. Shepard—January 2, 1896—Provide better means of egress from building by erecting a fire-escape on the west end, balcony at third floor to take in window in end of hall, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, balcony and stairs to be twenty-four inches wide and constructed in accordance with specifications furnished by this department, with exception of width of balcony and stairs. Compiled
- No. 19—Hotel Inagh (Lorain)—M. C. McCarty—January 7, 1896—Provide better means of egress from building by erecting a balcony stairway fire-escape on west end balcony at third floor to take in window in end of hall, balcony at second floor to take in corresponding window, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground; at the bottom of stairs a landing not less than two feet long supported by bracket; escape to be constructed in accordance with the specifications furnished by this department; arrange the door at foot of front stairs to swing both ways. Compiled.
- No. 20—Hotel Marsh (Van Wert)—G. H. Marsh—May 21, 1896—Provide better means of egress from building by erecting fire-escape on the north side, balcony at third floor to take in window in end of hall between rooms No. 39 and No. 40, extend east and take in window of room No. 60, from balcony a flight of eight-inch rise and eight-inch tread stairs to descend to balcony at second floor; abandon room No. 60 or remove door from its hinges, so that occupants of that portion of building can reach fire-escape; on west side of building provide an escape, balcony at third floor to take in one window of room No. 42 and one window of room No. 43, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground, at bottom of stairs a landing not less than two feet long, supported by bracket; provide an additional escape on the west side, balcony at third floor to take in one window in end of hallway between rooms No. 47 and No. 48, with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of ground, at bottom of stairs a landing not less than two feet long supported by bracket; on east end of building in portion occupied by help, provide an escape, balcony at third floor to take in window in end of hall between rooms No. 53 and corner room with a flight of eightinch rise and eight-inch tread stairs to descend to within ten feet of the ground, at bottom of stairs a landing not less than two feet long supported by bracket; from top balconies of escapes iron ladders made rigid to same and to extend to roof; escapes to be constructed in accordance with specifications furnished by this department; cut doorway through partition wall between room No. 50 and corner room. Three escapes erected.



- No. 20½—Order issued to Geo. S. Freeman, proprietor of Hotel Marsh—Provide life-lines or ropes in all rooms not directly connected with fire-escapes, same to be of sufficient length to reach the ground to be securely fastened on inside; place red-lights in all halls leading to escapes, same to be kept burning at all hours of the night and placard the hall to read "red light leads to fire-escape," with a hand pointing in the direction of the escape. Complied.
- No. 21—Hotel Noel (Cambridge)—Cosgrove & Orme—February 4, 1896--Provide better means of egress from building by erecting a fire-escape on the east end, balcony at third floor to take in window in hall near room 32, with a flight of eight-inch rise and eight-inch tread stairs to descend to roof of one story building, escape to be constructed in accordance with the specifications furnished by this department. Building vacated.
- No. 22—Hotel Phœnix (Lorain).—Phœnix Brewing Co.—January 7, 1896—Provide better means of egress from building by erecting a fire-escape on the south side, balcony at third floor to take in the east window in room No. 24 with a flight of eight-inch rise and eight-inch tread stairs to descend to balcony at second floor, balcony to take in two windows, from thence a flight of stairs to descend to within ten feet of the ground, balconies and stairs to be not less than twenty-one inches wide and constructed in accordance with the specifications furnished by this department; make an open passageway through room 24 from hallway to fire-escape, keep passage open at all times; case in stairway opening on third floor and provide tight fitting doors at head of stairs, doors to swing both ways. Escape erected; balance of order not compiled with.
- No. 23—Kramer Hotel (Hillsboro)--Mrs. Phillip Kramer—Was inspected August 21, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 24--Lawrence House (Ironton)—Ed. Hannon—Was inspected August 7, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 25--New Elliott Hotel (Greenfield)—T. M. Elliott—Was inspected October 1, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 26-New Ironton House (Ironton)—John M. Strobel—Was inspected August 7, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the
- No. 27--Palace Hotel (Ironton)—Martin Schwiber---Was inspected August 7, 1896, and believed to have sufficient egress and to be otherwise equipped to conform to the law.
- No. 28—Russell House (Defiance).—S. B. Sneath and Ira Cadwallader—April 2, 1896—Provide better means of egress from building by cutting a hallway through room No. 10 on third floor and at the window provide a landing four feet long with a flight of eight-inchrise and eight-inch tread stairs to descend and land on bracket near roof of one story building; cut a hallway through room No. 22 to window on-First street and at window place a balcony of sufficient length to extend west and take in one window of room No. 20, from balcony a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground; at bottom of stairs a landing not less than two feet long supported by bracket; extend hallway through room No. 33 to window on southeast or alley side of building, at window provide a landing four feet long with a flight of eight-inch rise and eight-inch tread stairs to descend to within ten feet of the ground and land on bracket; from the top balconles of fire-escapes provide iron ladders made rigid to same and to extend to roof; escapes to be constructed in accord ance with specifications furnished by this department. Partially compiled.
- No. 28%—Order issued to S. V. Parsons, proprietor of the Russell House—Provide life-lines or ropes in all rooms not directly connected with fire-escapes, same to be securely fastened on the inside and to be of sufficient length to reach the ground; place red lights in all hallways leading to fire-escapes, same to be kept burning at all hours of the night and placard the hall to read "red light leads to fire-escape," with a hand pointing in the direction of the escape. Partially complied.



ENDING YEAR FISCAL BUILDINGS INSPECTED DURING XIX-TENEMENT TABLE

### NOVEMBER 15, 1896.

For order see corre- sponding number fol- lowing this table.	-+ #455F##5
Construction.	Stoves. 2 stairways 4 story frame Steam & nat, gas 2 stairway 5 steam & nat, gas 2 stairway 5 steam & nat, gas 2 stairway 7 steam & nat, gas 2 stairway 7 steam 8 story frame 2 store 8 story brick 8 story 8
Means of egress.	Stoves 2 stairways Steam & nat. gas 2 stairways Steam & nat. gas 2 stairway I stairway I stairway I stairway I stairway I stairway
Means of heating.	
City or town.	Akron
Locution of building.	208-212 North Market street. Akron. Market and Third streets. Canton. Dannison avenue. Egylan. The Broadway. The B
Name of owner.	S. N. Wilson
Иитрег.	-0100 4 10 to 1- x 2 5

\*See Hall order No. 20.

### TENEMENT BUILDINGS.

- DETAILED STATEMENT OF CHANGES ORDERED, TO WHOM ORDER WAS ISSUED AND DATE OF ISSUE.
- No. 1—S. N. Wilson (Akron), July 9, 1896—Shore up walls and take out present foundation and replace same by putting in substantial stone or brick to insure solidity of walls. Contract for work has been let.
- No. 2-Martin Bros. (Canton). See hall order No. 20. Complied.
- No. 8-J. A. McAuley (Columbus), February 6, 1896-Provide better means of egress by erecting four fire-escapes on building, as follows: First escape-in the east angle of building provide an escape, balconies at each floor to take in window looking west from front flat and to extend to angle of building, thence west and take in window looking south from adjoining flat, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground; second escape—in the west angle, provide an escape, balconies at each floor to take in window looking east from rear flat and extend to angle of building, thence east and take in double window looking south from the flat adjoining, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground; on the north side of building provide a fireescape in northwest angle of building, balconies at each floor to take in window in flat looking east, in flat where tower is located extend to angle of building, thence east and take in window in flat looking north adjoining, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground; in the northwest angle erect an escape, balconies at each floor to take in the window looking north from rear flat, extend to angle of building, thence north and take in window looking west from flat adjoining, with a flight of eight-inch rise and eight-inch tread stairs between, and from the first balcony above the ground a flight of stairs to come down to within ten feet of the ground; escapes to be constructed in accordance with the specifications furnished by this department; to provide for egress of occupants of front flat north of hall, it will be necessary to cut doorway through partition from front flat to flat adjoining as described to you by the Inspector. Complied.
- No. 4—C. W. Smith (Elyria), July 9, 1896—Provide better means of egress from building by erecting fire-escape on north side, balcony to be twenty-one inches wide and to take in window at northwest corner, with stairway same width, eight-inch rise and eight-inch tread to descend and land at top of outside stairway now in place leading from second floor to the ground; fire-escape to be constructed in accordance with specifications furnished by this department; cut door in partition at center of west end of building so as to give egress from south side of building to outside stairway. Escape erected.
- No. 5—C. Canalos (Lorain), September 26, 1896—The balcony on front of building is in a very unsafe condition, and if you intend to use the balcony as a general means of egress, it will be necessary to remove said balcony and replace with new one; when you replace balcony use wrought instead of cast iron brackets. Complied.
- No. 6—George Kelling (Sheffield), September 26, 1896—The balcony on front of building is in a very unsafe condition, and if you intend to use the balcony as a general means of egress it will be necessary to remove said balcony and replace with new one; when you replace balcony use wrought instead of cast iron brackets. Complied.



- No. 7—H. P. Nielsen (Lorain), September 25, 1896—The balcony on front of building is in a very unsafe condition, and if you intend to use balcony as a general means of egress it will be necessary to remove said balcony and replace with new one; when you replace balcony use wrought instead of cast iron brackets. Complied.
- No. 8—Anton Schmidt (Lorain), September 26, 1896—The balcony on front of building is in a very unsafe condition, and if you intend to use the balcony as a general means of egrees it will be necessary to remove said balcony and replace with new one; when you replace balcony use wrought instead of cast iron brackets. Compiled.
- No. 9—Reid Carpenter and F. S. Ozier (Mansfield), March 26, 1896—Provide better means of egress from building by connecting balconies at third and second floors with a flight of eight-inch rise and eight-inch tread stairs, and from the balcony at second floor a flight of stairs to come down to within ten feet of the ground, stairs to be of iron and constructed in accordance with specifications furnished by this department. Not reported as complied.
- No. 10—Jacobin Herbslee & P. A. Reese, J. W. Hibble, agent, (Xenia), April 10, 1896—Remove the two doors in halls on third floor; change the doors in hall on second floor to open outward; remove all furniture from halls and keep them clear of obstructions at all times; provide substantial hand railings on both back stairs from first to third floor. Not reported as complied.



For order see corresponding number following this table. 8288285828545548555008404

TABLE XX.--CHURCH BUILDINGS INSPECTED DURING FISCAL YEAR ENDING NOVEMBER 15, 1896.

Means of extingulation	tricity
Means of lighting.	Hot air furnace   Gas.   City water works   Stowes   City water works   Steam   City water works   City wa
Means of heating.	frame Furnace. Stoves. Stoves. Bot air furnace. Bot air furnace. Steam Steam Hot air furnace. Steam Bot air furnace. Steam Steam Steam Steam Hot air furnace. Steam Steam Hot air furnace. Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam
Construction.	story frame story brick story brick story brick story brick story brick story brick story brick story brick story brick story brick story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame story frame
Location.	Lancaster Hillsboro Beford Beford Geneva Geneva Hillsboro Fronton Fronton Hillsboro Fronton Fronton Hillsboro Fronton Hillsboro Hillsboro Hillsboro Fronton Hillsboro Hillsboro Fronton Hillsboro Fronton Hillsboro Fronton Hillsboro Fronton Hillsboro Fronton Fronto
Name of church.	Camp Meeting Auditorium Christian Church Christian Church Christian Church Congregational Church Congregationa

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Number.

### CHURCH BUILDINGS.

### ORDERS IN DETAIL AND DATE OF ISSUE.

- No. 1-Camp Meeting Auditorium (Lancaster), December 21, 1895-Roof supports are spreading and show evidence of weakness; will offer two propositions whereby the supports can be made safe; first, provide iron or wood columns under each end of each roof girder or arch, columns to be placed at a point twenty feet from north and south walls and fifteen or twenty feet from east and west walls, columns to rest on solid foundation and have a plate twelve inches wide by four feet long at the top and securely anchored to the roof supports; columns on the north, east and west sides can be used to build the gallery if you so desire. Second proposition: provide boiler plates for each side of each end of all roof arches, boiler plates to start from a point three feet below where arches rest on posts and extend up to a point ten feet from the junction of rafters and upright supports, plates to be securely bolted together by bolts extending through plates and girders; where boiler plates are spliced the two edges should come up together with a piece on the outside with two rows of rivets through on each side of seam-either of the above plans will be satisfactory and make the roof secure beyond doubt. Improvements made but order deviated from.
- No. 2--Christian Church (Hillsboro)—Inspected and found to conform to the law as to exits, etc.
- No. 3-Christian Church (Ironton)-Inspected and found to conform to the law as to exits, etc.
- No. 4—Church of Christ (Bedford), February 8. 1896—Adjust main exit door to open outward; provide efficient means for extinguishing fire on second floor, to consist of either standpipes and hose or some recognized chemical extinguisher. Order complied with and certificate of inspection issued
- No. 5—Congregational Church (Geneva), June, 1896—Tower from roof is in a very bad condition and should be taken down at once; point up all brick work where water-washed with good cement mortar; change all exit doors to open outward. Department notified that order would be compiled with.
- No. 6—Congregational Church (Ironton)—Inspected and found to conform to the law as to exits etc., certificate of inspection issued.
- No. 7—Episcopal Church (Hillsboro)—Inspected and found to conform to the law as to exits,
- No. 8--First Baptist Church (Hillsboro —Inspected and found to conform to the law as to exits, etc.
- No. 9—First Baptist Church (Ironton), August 29, 1893—Supply hydrants on each floor with threaded faucets and sufficient length of hose to be hung in close proximity to hydrants to reach anywhere on same floor, to be used in case of fire, or provide some efficient chemical fire extinguisher. Order compiled with and certificate of inspection issued.
- No. 10—First Presbyterian Church (Ironton)—Inspected and found to conform to the law as to exits, etc.; certificate of inspection issued.
- No. 11—First Presbyterian Church (Springfield), September 3, 1896—Tighten up all tie-rods, nuts and bolts throughout the steeple. Order compiled with and certificate of inspection issued.



- By Differ Presentation There Berns March 3, 1984 Presidence for the new terms of the male insertant is the related to a fine of the one will insert enter the second to the content of the second to t
- No 3—Lemma I I Towns I from a —inspersed and some a with one a the a v v u exists seen sense.
- No MAN I Thomas Ellenters Adequated and loung is actived in the Last with editional description of the control
- No II-Pue forces I I Juneo Irania.—Inserted and found a contour a the ax m m said etc. sections of insertion month.
- S. A.-Presimental Chirch Generated Certifier 196-Private efficient means in community of the consumer from tolding to make it could stand-pipes and now in same reportable tremment contacts of language.
- St IT—Remaind M. P. Trumin Merica. Terreminer I 1995—Take first wall from two in the while will be in side where wall is manifed, and index periods to the side where remains are noted and resolute amount of a piece in this to member the mentionist measurement in the feet and there all generals will embed in necessary from times from the manifestation in the mentionist medical med
- So the first a Thomas Leads Tenders is the Common present which common restaur in any of their and expending of palers which are simplers for the secure in wear other and substitute with their anothers to distance and all the north leads are now to the wind of common warm found to be affected with the sufficient of warman their removal and substitute rink is their secul. These compared with and common which the first orders and common which the substitute rink is their secul.
- No 16—by Joseph & Thurst. Truntin —Inspected, and found as conform at the law as a excess one conforms of inspection issued.
- No. 38—30. La vience Thirm. Indice —Togethet and found of condition of the law as he exist.

  one considers of inspection assets.
- No habit Morry Country Ellisoter Alegeried and found to confirm to the law as as each end
- So 25—9: Pau Lingera Curres Indone—Insperied and found to prefrom a mellaw as to exilt end.
- 30. 22—50. Paul Divisorat Chimpi, Popul Attende 7 (1966—Charles present similar status as a second five will be by the second of a square dealing time can be done by removing all the southern by an of the large minimal mode and south as many law, we decreased to a state of the many of the state of the second of the
- No 24—Spencer M. E. Courris. In com.—Imperred and found to conform to the law as to exite, one communicate of inspection is select.
- No 35—Timeralist Course. Went August & 1866—Point up to the and stone with with good comest mornar strained with deather to stone to light outward provide edition means for extraordinate free to obtain if muter stand-paper and base or some report and the manufacture. Not reported as complete.



TABLE XXI-MISCELLANEOUS BUILDINGS INSPECTED DURING YEAR.

11						
For	For what purpose used and city, town or village.	Location	Construction.	Means of heating.	Means of lighting.	For order see corre- sponding number fol- lowing this table.
	CADIZ.					
Harry	Harrison County Infirmary	Three miles west of Cadiz 2 story brick	2 story brick	Stoves and steam Oil lamps	Oil lamps	
	CANTON.					
New	New Way Health Home	Eighth and Walnut streets	8 story	Steam Gas	Gas	:
	DATTON.					
Store	Store and offices (Beckel, Estate)	Third and Jefferson streets				€
	Нтлявово.					
Libra	Library, city offices, sleeping rooms, etc High and Walnut streets 2 story brick	High and Walnut streets	2 story brick	Stoves	Gas and electricity	
	LOBAIN.					
St. Jo	St. Joseph's Hospital	Penfeld avenue	8 story frame	Steam	Off lamps	۵.
	MADISON.					
Wom	Woman's Relief Corps Nat'l Home (Cottage Same (Hospital) Same (Wettemeler Cottage).		S story briok	Furnaces	Gas and electricity Oil lamps	<b>6</b> 1-0
	MILLERSBURG.					
Holm	Holmes County Infirmary Painters' Children's Home	4½ miles north of Millersburg 25 story brick	2 story brick	Steam	Oil lamps	95

- No. 12—First Presbyterian Church (Xenia), March 81, 1846—Provide four iron tie-rods of one and one-eighth inch round iron, reinforced ends to be one and three eighths inch, with a twelve-inch star washer on the outside of a plate four inches wide, seven-eighths inch thick and eighteen inches long, with one and one-eighth by three-inch nuts; one rod over top of first window, one rod under top window, one rod over top of same window and one rod between that and top of wall at the south window on the east side of building, rods and plate let in wall; change all exit doors to open outward; repair all down spouting and connect the same with tile to carry water away from foundation; provide efficient means for extinguishing fire throughout the building to consist of either stand-pipes and hose or some recognized chemical extinguisher Not reported as complied.
- No.18—German M. E. Church (Ironton)—Inspected and found to conform to the law as to exits, etc.; certificate of inspection issued
- No. 14—M. E. Church (Hillsboro)—Inspected and found to conform to the law as to exits, etc.; certificate of inspection issued.
- No. 15—Pine Street M. E. Church (Ironton)—Inspected and found to conform to the law as to exits, etc.; certificate of inspection issued.
- No. 16—Presbyterian Church (Greenfield), October 7, 1896—Provide efficient means for extinguishing fire throughout church building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Complied.
- No. 17—Richland M. P. Church (Melvin), December 7, 1895—Take down wall over two of the windows on east side where wall is cracked, and other portions of wall where bricks are loose, and rebuild same; lay a piece of iron two inches wide one-fourth inch thick and five feet long over all openings, with ends of pieces of iron turned down about one inch, to anchor the wall together; place a seven-eighths inch tie-rod east and west through the tower over front door, with an eight-inch washer and nut on the outside drawn up tight; provide spouting for building so as to carry the water away from foundation. Not reported as complied.
- No. 18—St. Bridgid's Church (Xenia), October 31, 1896—Remove present wood columns resting on lower floor and extending to gallery, which are supports for the steeple on west side, and substitute with iron columns, columns to be not less than seven inches in diameter and one inch thick, cast hollow; the wood columns were found to be affected with dry rot sufficient to warrant their removal and substitute iron in their stead. Order compiled with and certificate of inspection issued.
- No. 19—St. Joseph's Church (Ironton)—Inspected and found to conform to the law as to exits, etc.; certificate of inspection issued.
- No. 20—St. Lawrence Church (Ironton).—Inspected and found to conform to the law as to exits, etc.; certificate of inspection issued.
- No. 21—St. Mary's Catholic Church (Hillsboro)—Inspected and found to conform to the law as to exits, etc.
- No. 22-St. Paul's Lutheran Church (Ironton)-Inspected and found to conform to the law as to exits, etc.
- No. 28—St. Paul's Lutheran Church (Piqua)—August 7, 1896—Change present winding stairway leading from second floor so as to descend to a square landing; this can be done by removing all the winders down to the portion of stairs running north and south; it may also be necessary to abandon the pantry or closet located just west of the head of stairs so as to give starting room for the square treads; change outside exit door to open outward; provide efficient means for extinguishing fire in building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate of inspection issued.
- No. 24—Spencer M. E. Church (Ironton)—Inspected and found to conform to the law as to exits, etc., certificate of inspection issued.
- No. 25—Universalist Church (Kent)—August 6, 1896—Point up brick and stone work with good cement mortar; change exit doors leading to street to open outward; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Not reported as complied.



TABLE XXI-MISCELLANEOUS BUILDINGS INSPECTED DURING YEAR.

For order see corresponding this table.			•		10	<b>6</b> 1.00	<b>∞</b> g
Means of lighting.	Stoves and steam Oil lamps	Gas		Stoves Gas and electricity	Off lamps	Gas and electricity Oil lamps	Oil lamps
Means of heating.		Steam	•••••••••••••••••••••••••••••••••••••••		Steam	Furnaces	SteamStoves
Construction.	2 story brick	8 story		2 story brick	3 story frame	3 story brick 2 story frame 2 story frame 2 story brick	2 story brick 2 story frame
Location	Three miles west of Cadiz 2 story brick	Eighth and Walnut streets	Third and Jefferson streets	High and Walnut streets	Penfleld avenue	Nat'l Home (Cottage   Hospital)   Hospital	4% miles north of Millersburg
For what purpose used and city, town or village.	CADIZ. Harrison County Infirmary	CANTON. New Way Health Home	DAYTON. Store and offices (Beckel, Estate)	HILLSBORO.  Library, city offices, sleeping rooms, etc High and Walnut streets	Lorain. St. Joseph's Hospital	Madison. Woman's Relief Corps Nat'l Home (Cottage (Hospital) Same (Wettemeier Cottage)	MILLERSBURG. Holmes County Infrmary
Митрет.	-	81	က	4	ro	<b>⊕</b> ≀-∞	691

TABLE XXI-MISCRILANEOUS BIII DINGS INSPECTED DUBING VEAR-Concluded

	For order see corresponding number fol- lowing this table.	=	21	82	7	. 25 E
ď.	Means of lighting.		Hot air	Gas and electricity	Steam Oil lamps	Oil lamps
YEAK—Conclude	Means of heating.				Steam	Steam
PECTED DUKING	Sonstruction	2 story brick	2 story brick	2 story frame	8 story brick	2 story brick
TABLE AXI—MISCELLANEOUS BUILDINGS INSPECTED DURING YEAR—Concluded.	Loostion.		Blanchard township	Fourth and Chillicothe streets	County farm	Three miles north of Wooster 2 story brick
TABLE XXI—MISCEL	For what purpose used and city, town or vilage.	 East Side Engine House and Town Hall	Putnam County Infirmary	PORTEMOUTH. Store and restaurant (Chas. Wertz) Fourth and Chillicothe streets 2 story frame	County Infirmary	Wayne County Children's Home
	Number.	=	32	13	7	55 50

### MISCELLANEOUS BUILDINGS.

### DETAILED STATEMENT OF CHANGES ORDERED, DATE OF ISSUE.

- No. 8—Store and Offices (Dayton), July 10, 1896—No jurisdiction. Inspected by request and elevator found defective; suggestion made by letter to repair elevator, which was promptly done.
- No. 5—St. Joseph Hospital (Lorain), January 6, 1896—Provide better means of egress from building by converting the window in west end of hall into a door, same to open outward, at door provide a landing six feet long, with a flight of seven-inch rise and ten-inch tread stairs to descend to an easy or landing at the second floor, thence to the ground and land on a solid footing stone, landing and stairs to be forty-two inches wide and to be constructed of hard wood; case in staif opening at third floor and provide tight fitting door at head of stairs, door to open both ways; provide efficient means for extinguishing fire, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Third floor reported abandoned; no means reported for extinguishing fire.
- No. 6—Woman's Relief Corps National Home—Cottage (Madison), February 7, 1896—Repair plastering of ceiling and side walls where icose and fallen off, and where jointure is made between brick walls and studding walls of rooms and hallways, the plastering be removed and studding walls extended over the surface of the brick walls and replaster; provide better means of egress by erecting a fire-escape on the rear of building, balconies at each floor to take in window at end of each hallway running north from stair hallway, with a flight of eight-inch rise and eight-inch tread stairs to extend to the ground; balconies and stairs to be twenty-one inches wide and constructed in accordance with the specifications furnished by this department. Order compiled with and certificate issued.
- No. 7—Woman's Relief Corps National Home—Hospital (Madison), April 29, 1896—Provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.
- No. 8—Woman's Relief Corps National Home—Wittemeler Cottage (Madison), April 29. 1896—Provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 9—Holmes County Infirmary (Millersburg), September 4. 1896—Provide at least one hydrant on each floor with threaded faucet and sufficient length of hose hung in close proximity to reach any place on same floor, or chemical extinguisher on each floor Contract let.
- No. 10—Painter's Childrens Home (Millersburg), September 4, 1896—Repair water and drain pipes in boys' wash and bath rooms. provide separate toilet rooms for the use of females; change doors in hall of main building in boys' room on first floor to open outward. Portion of order relating to drainage reported complied with, balance order to be attended to at once.
- No. 11—East Side Engine House and Town Hall (New Bremen), August 7, 1896—Ruilding is in an unsafe condition and must be abandoned and taken down. Order complied with.
- No. 12—Putnam County Infirmary (Ottawa), September 8. 1896—Provide better means of egress from building by erecting fire-escape on the east end, balcony at attic floor to take in one window of room on south side of hallway and one window of room on north side of hallway, balcony at second floor to take in corresponding windows, with a flight of eight inch rise and eight-inch tread stairs between, and from balcony at second floor a flight of stairs to come down to a level with present stairway from

No. 12-Putnam County Infirmary (Ottawa)-Concluded.

first floor; bottom of stairs to be supported by bracket; the windows in attic bed rooms leading to fire-escape should be cut down to within eighteen inches of floor; provide a doorway in partition between bed rooms in attic; an additional escape on the south end of building, balconies at each floor to take in window in end of hallway and to be of sufficient length to accommodate a flight of eight-inch rise and eight-inch tread stairs between, from balcony lat first floor a flight af stairs to come to the ground; fire-escapes to be constructed in accordance with specifications furnished by this department; if you do not desire to extend fire-escape to attic floor on east end of building, you can abandon attic, but if attic is used the fire-escape must extend to the attic according to the above order; cut a doorway in partition wall between each room in attic, so the occupants of rooms can reach fire-escape without going into hallway; remove all wire and iron lattice work from inside of windows in attic, so that said windows can be used in case of fire; change all exit doors to open outward; dining-room in basement in new building should be thoroughly renovated and white-washed; also the two story frame building, west of main building, where inmates are confined : no inmates should be confined above the first floor unless it be in a fire-proof building; the two story frame building west of main building is in a very unsanitary condition and should be thoroughly cleaned and kept in good order at all times; provide efficient means for extinguishing fire through out building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order complied with and certificate issued.

- No. 18—Store and Restaurant (Poftsmouth), July 15, 1896—Change doors at foot of stairway on Chilhcothe street to open outward. Not reported as complied.
- No. 14—County Infirmary (Troy), June 24, 1896—Provide better egress from Womens' department by cutting down window at end of hallway, first floor above basement at east end of building, to a door, same to open outward, at door place a landing forty-two inches wide and of sufficient length to take in width of door, from landing a stairway fortytwo inches wide, seven-inch rise and ten-inch tread to descend northward to ground and land on solid footing; on south side of wing extending east, cut first window from corner on third floor down to a door, same to swing outward, at door provide a landing of sufficient length to take in width of door, from landing provide a flight of seven-inch rise and ten-inch tread stairs to extend southward to ground, landing on a solid footing; place a sufficient number of columns under stairway to prevent vibration, columns to be of four-inch gas-pipe and to be placed on either side between starting and landing points, columns to rest on solid footing stone; at north end of building, in wing extending north and south, cut window in end of hallway on third floor down to a door, same to open outward, at door place a landing forty-two inches wide and of sufficient length to take in door, from landing provide a stairway fortytwo inches wide, seven-inch rise and ten-inch tread, to extend westward to a landing on line with second floor, landing at second floor to be eighty-four inches wide, from landing at second floor a flight of stairs forty-two inches wide, seven-inch rise and ten-inch tread to descend east to a solid footing at ground; to make landing at second floor rigid, it will be necessary to column up with four-inch gas-pipe columns, same to rest on solid footing at ground, cut window in hallway at second floor in north end of hall in wing extending north and south to door, same to open outward. at door provide a landing forty-two inches wide and of sufficient length to take in door, from landing provide a stairway forty-two inches wide, and seven-inch rise and ten-inch tread to extend eastward to the ground, landing on a solid footing; stairway to be erected in accordance with letter of instructions and plans and specifications furnished by this department; hang all doors at points of exit to swing outward; provide a sufficient length of hose at each stand-pipe in cross hall, also in hallway extending east and west, to be used in case of fire. Order compiled with and certificate issued.
- No. 18—Wayne County Childrens' Home (Wooster), September 4, 1896—Change exit doors to open outward; provide efficient means for extinguishing fire throughout building, to consist of either stand-pipes and hose or some recognized chemical extinguisher. Order compiled with and certificate issued.
- No. 16—Wayne County Infirmary (Wooster), September 4, 1896—Provide an iron stairway commencing at the south end of proposed new balcony, said stairway to connect with the balcony and descend westward to the ground, stairway to be four feet wideseven-inch rise and ten inch tread, to be constructed in accordance with specifications furnished by this department, with the exception stairway is to be four feet wide; change exit doors to open outward. Order compiled with and certificate

### SUMMARY.

### SHOPS AND FACTORIES.

Districts.	No. factories in which orders were complied with.	No. factories in which orders were not complied with.	No factories inspected in which no orders were issued.	Total.
First	116 28 80 44 60 27 49 132	8 11 7 26 13 3 1	120 78 42 71 80 61 84 206 130 176 121	260 200 77 177 137 124 112 255 273 261 138
Grand totals	765	88	1,174	2.027

### FACTORY BUILDINGS.

Districts.	No. buildings in which orders were complied with.	No. buildings in which orders were not complied with.	No. buildings inspected in which no orders were issued.	Total.
First Second	70 14 43 37 23 32 17 86	6 5 3 12 11 1 1 3 18 8 8	85 121 61 109 73 99 78 194 165 187 106	170 196 78 164 121 122 111 214 269 233 125

### EXECUTIVE DOCUMENTS.

### PUBLIC ASSEMBLAGE BUILDINGS, ETC.

Class of buildings.	No. buildings in which orders were complied with.	No. buildings in which orders were not complied with.	No. buildings inspected in which no orders were issued.	Total.
Public hall College and public school Opera house and theater Hotel Tenement Church Mercantile Miscellaneous	71 17 15 8	41 31 2 2 3 2 3 2	6 26 9 12 14 2 3	151 128 28 28 10 25 16 16

TABLE XXII—ACCIDENTS REPORTED DURING FISCAL YEAR ENDING NOVEMBER 15, 1896.

Date of acci- dent.	Name of person injured.	Age.	By whom employed.	City or town.	In what manner and to what extent injured.
28.50 Nov. 1885. Nov.	C. W. Tennley Wison Robinson. Graham Wyte Graham Wyte John Connell James Gooless John Medrath Harry Pleroe Joseph Reno Joseph Reno Godffrey Stroess Charles McLarrery J. W. Davis	82 82 82 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Pennsylvania Co Dayton Malleable fron Co. Ervin Brown Scoddard Manutacturing Co. Brown-Brown Brown-Bonnell Iron Co. Canton Steel Co. Canton Steel Co. Dayton Malleable fron Co. P. C., C. & St. L. Ry. Co.	Wellsville Dayton Cedarville Dayton Dayton Cedarville Dayt n Younkstown Alliance Chefmati Canton Springfield Dayton Dennison	Fell against vat filled with hot lye—leg severely scalded.  Splashing of molten fron—left foot burned. [thumb cut off. Caught hand between gearing of reels—three fingers and part of Arm struck drop harmer frame—incomplete fracture of radius of Explosion of cidedrs—back burned.  Struck by piece of broken tool—lost left eye sight.  Guaght hand between engs of cylinder bar—thumb bursted.  Handling scrap—two fingers of right hand cut.  Fell over flask in foundry—small bone of right and the fractured.  Struck by wh. Johr.—publictured wound resulting in blood poisoning, burned by wh. Johr.—publictured wound resulting in blood poisoning.
Dec. 1518223	Martin Koppski.  9. J. Farley. Michael Martinkovitch William Morgan. Eli Ralls. John Sayerman.	888 2 4	Millburn Wagon Co Dayton Malleable Iron Co Bellaire Nail Works Pennsylvania Co Rowe & Trumel Canton Steel Co	Toledo	Lifting of wagon—brulsed and sprained back Splashing of molten fron—fight foot burned. Collision of bugges—finger broken. Falling of fininge lock from wagon—finger severely brulsed. Caught by circular saw while grinding same—left hand cut and muscle of thumb lacerated. Fell down staffway—two sealp wounds. Slipping of car-body when lowered on trucks, caught thumb—tip of
400000000000000000000000000000000000000	Robert Ashem S. J. Welsh W. D. Maddox Joseph Decker Harry Philips. C. W. Shaw William H. Chubner. James Skillen. Famest Great T. M. Betkett T. M. Betkett Gooffe Northall Mrs. Amelia Shelp	<b>a</b> 228888535 858	Cleveland Ship Building Co- Pennsylvania Co- Dayton Malleuble Fron Co- James Laffe & Co- Indianapolis Switch and Frog Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Lozier Mandracturing Co- Butterprise Boiler Co- Brown Bonnell Iron Co- Buckeye Electric Co-	Columbus Dayton Springfield Dayton Springfield Dayton Dayton Cincimati Cincimati Kavenna Struthers Youngstown Cleveland	left thumb cut off Slipped on lee-injuring cords and muscles of both feet.  Struck right foot with spike manl-same severely bruised.  Caught hand in rip-saw—little flager cut off and third flager lacer- Splashing of molten iron—right foot burned.  Struck by piece of wedge—left leg bruised.  It hand out.  Struck by piece of wedge—left leg bruised.  It hand out.  Struck by well of steam-pipe—striking and wounding matery of Splashing of molten iron—right foot burned.  Splashing of molten iron—right foot burned.  Splashing of molten iron—right foot burned.  [postoning.  Struck by falling crow—lar—foot badly bruised resulting in blood Slipped while descending ladder—shoulder broken and wristsprained Plecking up sersp, nail penetrated hand—palm of left hand punctured.  Crushed by falling ore—killed.  Struck by hot lene coming through rolls—right leg below call burned and from window on alarm of free—peols bone fractured, arm
ភននន	William W. Goodrich J. G. Davidson Henry Grote	88 188 18	G. W. Palmer & Co	Wellington Wellsville Cincinnati Akron	HOOM

# TABLE XXII-ACCIDENTS-Continued.

Date of acel- dent.	Name of person in- jured.	yke.	By whom employed.	City or town.	In what manner and to what extent injured.
25 25 26 26 26 26 26 26 26 26 26 26 26 26 26	William Madden	<b>4558 8</b>	Dayton Malleable Iron Co	Dayton	Injured by turning flasks—bruising left hand resulting in loss of index Falling metal striking hand-inger broisen.  [fanger. Handling board—hand badly bruised.  Crushed between car and building—contused shoulders, arms and sides, also forcing blood into eyes.  Caught between car and building—ribs fractured and contused muscles of right side and contused shoulders and back.  Caught between ear and building—incomplete fracture of ribs, contused shoulder, both arms and cheek, abraded wound of neek, also
22222222222222222222222222222222222222	Joseph Patrone Kate Bonne Kate Bonne Forey Henry Juergens D. Anderson Lesle Thompson Frances Electhardt Charles Fitman Emanuel Brown Charles Sheppard Michael Lothara Join Sortman Join Sortman Join Sortman Join Scriman Join Scriman Join Scriman Join Scriman Join Scriman Join Scriman	<u> </u>	Younestown Steel Co. A. Fisher Manufacturing Co. Strenk, Hamberger & Co. Bayton Maleable Iron Co. Lozier Manufacturing Co. Banner Laundry. James Leffel & Co. Black & Claw Son Co. Rockford Hoop Co. Rockford Hoop Co. Rockford Hoop Co. Rockford Hoop Co. Black & Claw Son Co. Black & Claw Son Co. Black & Claw Son Co. Black & Claw Son Co. Black & Claw Son Co. Black & Claw Son Co. Black & Claw Son Co.	Youngstown Hamilton Canton Cincinnati Diayton Toledo Columbus Springfield Hamilton Hecla Hecla Hamilton Hardilton Hardilton Hardilton Hardilton Hardilton Dayton	blood forced into eyes.  Caught under descending cage—crushed and instantly killed. Caught under descending cage—crushed and instantly killed. Caught hand under stamping press—end of right thumb cut off. Fell into open hearth pit—a sprain and loosened ligaments of ankle. Fell through latch way—ankle broken. Spinshing of molten from—left arm baddy burned. Boxing of counter-shafting falling—severe scalp wound. In jured on mangle roll—ends of left hand fingers mashed and burned anecessitating amputation. Caught hand in rip—saw—end of thumb cut off. Falling flask striking hand—linger mashed Caught left hand in hoop planer—little finger cut off. Fell off bussel-pipe—ankle bone fractured. Fell off bussel-pipe—ankle bone fractured. Fell off bussel-pipe—top of counter saw—lhumb cut off. Caught left hand in circular saw—lhumb cut off. Splashing of iron—right foot burned.
. 000	m'∢ o		  Lane & Bodley Co	Cincinnati	Falling over obstruction—contused wound of left leg. Right hand caught by falling bundle of castings—third and fourth flugers wounded. Unosding engine from track slipped and rolled on hand—two mid- dis fluores of left hand track.
6668844 <b>28110</b>	Harry Brinkman Fred Bodimer Fred Bodimer D. Zimmerman D. Zimmerman Charles Biolic Charles Billinglee E. F. Waston Fred Randhoizer J. G. Hartley Joseph Miller Benjamin Boehner	ងខានខាងខាងខាងនេះ	H. P. Deuscher Co Lane & Bodley Co Euryler Manufacturing Co P. C. & S. L. Ry. Co Guation Steel Co Diamond March Co Diamond March Co William Harker & Co William Harker & Co Dayton Malleable Iron Co Forsythe Pattern Works. Lane and Bodley Co	Hamilton Cincinnat Stryker Dennison Canton Hamilton Hamilton Dayton Cincinnati Chyton Chyton Cincinnati Chyton Chyton Chyton Chyton Chyton Chyton Chyton Chyton Chyton Chyton	are times of the front manner. Splashing of motive from the front burned. Hand caught between pulley and wall—bruised and burned. Hand caught between pulley and wall—bruised and burned. Hand caught in buzz-planer—four fingers cut off. Struck by engine—right arm cut off four inches below elbow. Hand caught in chain of crane—thumb sprained. Hoaved falling on left food—instep sprained.  Stepped—middle bone left hand broken.  Stepped on nail—punctured wound of left foot. Hand caught in drill-press—widdle linger crushed necessitating amsplashing of motion from—left foot burned. [putation, Hand caught in planer—ends of three fingers cut off. Crank casting falling on right foot—foot bruised across toes.

3 Ex. Doc.

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Jan. 21 21	M. Ryan Erank Zelleri	53	Dayton Malleable Iron Co	Dayton	Splashing of molten iron-right foot burned. Roller passing over left foot—toes and foot crushed and bruised.
តតវា៖	e E	\$ % S :	Lima Locomotive and Machine Co. Union Rolling Mill Co	Lima Cleveland Dayton	Clothing caught on revolving shaft—sulfed.—Ieft leg broken. Failing of tool cupboard while moving same—left leg broken. If lijuede left hand while loading annealing pote—contused wound of
នៃនេះ		2482	Black & Clawson Co James Leffel & Co Canton Steel Co	Hamilton Springfield Canton	Caught infatt notified in our forms mages managed in the Caught left hand in John Struck hip bruises of a Struck by revolving crane crank—left hip bruises. Struck by the caught in guide at rolls—contusion of one finger.
គ. -		288	Dayton Malleable Iron Co A. Fischer Manufacturing Co Dayton Malleable Iron Co.	Dayton Hamilton Dayton	Splashing of molten from both feet burned. Hand caught in stamping press—end of middle finger cut off. Suffering from accident, occurring Dec. 23, 1885—contused mus-
\$ 72 28	A. Peterson Harry Grebe	888	Lane & Bodley Co	Cincinnati	cles of shoulders, arms, side and back, also torcing blood into <b>cyes</b> . Spushing of moleto iron—right foot burned. Cought hand by iron casking—cut between thumb and first finger. Solashing of moleto iron—left leg and foot, also right foot burned.
រិតិតិ 			A. Nielson Tiffn Bent Wood and Lumber Co Wardlow-Thomas Paper Co	Cincinnati Tiffin Middletown	Caught between bed of cylinder press and wall—killed. Flying blook from edging saw, striking forehead—killed. Caught hand in callender Folls—ends two middle ingers masbed.
31 31 Feb. 2	Harry Steet Charles Blan Patrick Toon	282	G. Gerstle & Co	Cincinnati Zanesville Springfield	Caugui hand in splitting machine—hand cut. Lifting machinery, same falling—little finger of left hand mashed. Fell off trestle on point of hammer—bruised and slightly fractured
S	F. A. Miller	12	Stoddard Manufacturing Co	Dayton	lower rib. Caught hand on cogs of drill press—contused and lacerated second and third fingers necessitating amoutation of second.
44.	Thomas Brady	53.52	Dayton Malleable Iron Co		Bursting of mould—both feet burned.  Splashing of molten from—left eye ball and lid burned.  Caught on revelving shaft—one foot and lower part of leg injured.
7 1			Novelty Stamping Co	Bellaire	necessitating amputation. Caught ingers between threading chucks-necessitating amputa-
. *ō	H. Dare Ross	55 75 6	Dayton Malleable Iron Co National Serew & Tack Co Dayton Malleable Iron Co	Dayton Cleveland	tion or nates alager or lagt a factor. Splashing of molten front—right foot burned. Cause of accident unknown—found dead in elevator pit. Stumbled and struck foot against hot sprue—left leg burned.
5 <u>0</u> =		30 22	Pennsylvania Co Black & Clawson Co	Wellsville	Suffering from accident occurring Jan 6—contused wound left leg. Caught between stringer and pile of lumber—left ankle sprained. Caught timer between from flasks—fourth flacer mashed.
<b>=2</b>			Dayton Malleable Iron Co	Dayton	Caught right hand while moving annealing pots-contused wounds of second and third fingers.
£.7	Z Turner Peter Stem	88 22	Peerless Manufacturing Co	Cleveland	Moving annealing plate—contused wound of right hand.  Clothes caught on door-guards of car—ankle dislocated and com- round fracture of home above ankle joint.
~ ~ ~ ~	Emanuel Schweir B. F. Oldwine	40	Russell & Co Dayton Malleable Iron Co	Massillon Dayton	Barrel slipping—foot and ankle bruised. Caught between lever and lever rail—ootused wound of left hand. Splasting of molten iron—left foot hurned.
<u> </u>	Fat Sharker H. Houser Emil Lorenz	88	3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	1 1 2	Iron rods falling on left hand—little finger fractured. Casting falling—contrased tissues of left hand.
នគរ	Preston Alexander John McCausland		Buckeye Engine Co Dayton Malleable Iron Co Pennsylvania Co	Dayton Wellsville	Riveting tank struck finger—severely bruised.
និត្តភ	S. Peterson G. Hopkins	333	Dayton Malleable Iron Co	Dayton	Stumbled and struck hand against hot sprue—right hand and wrist thor falling on hand—contused wound of third finger of right hand.
មមន្ត	H. F. Wagner G. M. Barrett M. Marinem		Pennsylvania Co	Cleveland	spassing of mostern from core of the state o
18	se accident reported Dece	шbе	*See accident reported December 28, 1866. †See accident reported January 6, 1896.	nuary 6, 1896.	

### TABLE XXII-ACCIDENTS-Continued.

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Date of acclident.	Name of person injured.	Age.	By whom employed.	City or town.	In what manner and to what extent injured.
Feb. 28 8 8	Jack Mason	* # R	Dayton Mallenble Iron Co	Dayton Cleveland Dayton Cleveland	Hand caught by trolley shank—contused wound of left hand. Casting failing—left foot bruised. Tightening belt on riveting machine, caught left hand in idler chain—lacerulion and amputation of little finger. Fingers caught in planet—ends of three fingers cut slightly.
N Si Si si si si Si Si si si si si si si si si si si si si si	J. A. Depries Solon Bonnett Philip Mask J. Brogan Chas, Lindley		Dayton Malleable Iron Co	Dayton  Columbiana  Youngstown  Toledo  Akron	Castling failing on left hand—contused wound of first, second and third fingers.  Flange-block failing on foot—two bones broken and one fractured. Struck by imp of frozen one—skull fractured—died March 20, 1866.  Failing down elevator shaft—sprained ankle and bruised shoulder. Hand eagily in foot press—end of thumb cut off.  Frankfing of all sprass—and of thumb cut off.
		•	Pennsylvania Iron Co Dayton Maleable Iron Co American Tube and Iron Co Dayton Maleable Iron Co	Cleveland	Slipped and fell getting off car—gash in back of head.  Spiashing of molten from—left foot hurned.  Knocked off platform by iron truck—killed.  Spiashing of molten from—right leg and foot burned.  —right foot burned.
12222		8 % % <b>%</b> % %	J. WOORTHE SORS PERBYTVARIA GO Stoddard Manufacturing Co	Salem Wellsville Dayton Cleveland	Fell on bethe bruised.  Lever slipping and striking man on leg—small cut on left leg.  Spisshing of modien iron—right foot burned.  Struck with board on old wound—contused wound of left leg.  Struck by lever of jack—gash over right eye-brow.  Caught hand in shaft-bar machine—ends two fingers cut.
2888222	B. Arnold Henry Buhl C. A. Bowls. Fred. Slonkonski S. McDermott A. Fulk Nick Huth	8428483	Dayton Malleable Iron Co	Dayton Quaker City Piqua Dayton Timn	Burst of flame from furnace-door-face and hands burned. Splushing of mother from-furt foot burned. Caught fingers in jointer-lost part of two fingers and one stiffened. Right hand caught in saw - necesstathing amputution of hand. Splided mother from-left foot burned. Splushing of mother from-left they burned. Hand caught on edging saw-index finger of right hand cut off
នានិតិត	Stephen Molnar Samuel F. Bartlow J. Neff M. Bellenger	*888	Standard Foundry & Manufac. Co. Lane & Bodicy Co Dayton Malicable Iron Co	Cleveland Clicinnati Dayton	Detween has and second joints.  Bursting of energy wheel—killed.  Struck by flying piece of steel—tissues of right eye-ball lacerated.  Splashing of molten from—right foot burned.
• A p. 26	F. R. Smith	8	Misler Bros	Ravenna	Ravenna Caying in of clay bank-ankie and shoulder dislocated, ruptured and bruised.

\*Received too late for publication in tweifth annual report.

	Left hand Hand caug Hand caug Chuck slip Hand caug Struck wit Pushing ra Fell off find Sipped an		Bursting of water end of blowing engine condenser—neck, arm and back scalded.  Bursting of water end of blowing engine condenser—neck, shoulder and back scalded.		Rai Car Spl
Hamilton Dayton. Urbana Dayton. Vrbana Dayton. Voungstown. Voungstown. Voungstown. Wooster Canton. Steubenyille. Steubenyille. Lorain Dayton.	Barberton Davion Barberton Lorain  Cereland	Lorain  Youngstown  Dayton  Cincinnati  Wellsville  Dayton  Dayton	Lorain	Columbus Canton Lorain	Dayton
Black & Clawson Co Dayton Malleable Iron Co Urbana Electric Light & Power Co Dayton Malleable Iron Co Brown-Bonnell Iron Co Pennsylvania Co Boor & Son Clanton Steel Co Clanton Steel Co Clanton Steel Co Johnson Co Dayton Malleable Iron Co	Diamond Match Co Dayton Manufacturing Co Dayton Manufacturing Co Johnson Co Johnson Co Lambon & Sessions Co.	Johnson Co  Heller Bros. Co  Stoddard Manufacturing Co Adler & Co Pennsylvania Co Reed, Kelly & Co	Johnson Co	R Bair	Dayton Malleable Iron Co
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,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Henry Prosser William Cain Chas. F. Anderson Grass Barke E. E. Starkey P. Saluski W. M. Ward W. M. Ward Winter Rose.	Peter Blass V. G. Ditzler Charles Aldrich Morris Bussinger Henry Cramer Peter Bruckman W. L. Wellig	James MitchellThomas E. Davis	H. W. Bair. Patrick Welch John Gallagher W. H. Baker. William Somerville	J. L. Parker Thomas Jensen Joseph Wargo Fred Weaver Nicholas Huhn
68.19 7.19 7.44 7.6 7. 3.2 7.6 8 9 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	nauniki naun		16 16	8 445828	ងនិងិ

# TABLE XXII-ACCIDENTS-Continued.

dent.	Name of person injured.	Age.	By whom employed.	City or town.	In what manner and to what extent injured.
1896. une 1 22 3 3 3 6	John Doyd	852252388	Keeves Iron Co James Dials. Union Rolling Mill Co A. Bayton Malleable Iron Co A. Bartow & Son B. A. Cochrane F. E. Kohler & Co.	Canal Dover	Rupture of steam boller-killed. scalded. Falling slate-foot mashed and breast bruised. Falling slate-foot mashed and breast bruised. Slipping and falling against hot casting—left arm burned. Strek in stoomsch by board-died June 7, 1896. Fell from ladder-killed. Caught bands between dies of punching press—hands mashed neces itating amoutation of two middle finers of left hand and to see
22= =	Alexander Keelhoeffer 2 M. Ritter 2 A. B. Snyder, 5 John Webber 3	22 22 22 22 22 22 22 22 22 22 22 22 22	Black & Clawson Co	HamiltonCuyahoga Falls	ond joint of little finger of left hand. Falling of heavy casting -second finger of right hand pinched off. Caught hand under cut-off saw -fourth and lifth fingers cut. Caught by the same of the saw -fourth and lifth fingers cut. Shoulder, ransfer car in shop-severe bruise on head and right shoulder.
2222	1 1111	82778			Caugh many over cen not of our and and and and and and and and and and
55778855888	D. Strasser	2221222222	Surder & Son Co. Youngstown Specialty Co. Belaire Steel Co. Belaire Steel Co. Taylor & Boggis Foundry Co. Johnson Co. Dayton Maleable Iron Co. Dayton Maleable Iron Co. Harry Thompson	Piqua Youngstown Youngstown Hamiton Hamiton Lorain Lorain Lorain Lorain Lorain Lorain Lorain Lorain	—third finger of right hand mashed.  Caught hand in shaft bender—second finger of left hand crushed caught hand in shaft bender—second finger of left hand cut off. Stepped in hole filled with hot water—leg scalded.  Stepped in hole filled with hot water—leg scalded.  Flask bursting—foot burned.  Flask bursting—foot burned.  Caught between car and bundle of pig Iron—internally injured.  Splashing of molem from—left foot burned.  Splashing of molem from—left foot burned.  Splashing of molem from—self foot burned.  Splashing of molem from—self foot burned.  Roller and rail failing—back of left hand cut and bruised.  Caught hand between two rails—first finger on right hand mashed.
8228882	le.	8388 8388	Sweetman's Printing House Barney & Smith Car Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co Johnson Co		wrench of leg near knee.  Hand caught in press while feeding—back of hand lacerated. Falling from searfolding at side of car—left wrist broken. Fall falling—left knee severely bruised. Caught hand on rip-saw—cut end of thumb off. Hose slipping off pipe connection—right forearm badly scalded. Explosion of bone mill—died July 8, 1896. Explosion of bone mill—died July 8, 1806.

Finger caught in saw—one finger severely hurt. Hand caught in saw—two fingers cut off. Hand caught in paper cutter—lost right hand. Hand caught in circular saw—third finger at first joint cut off. Caught hand between two ruils—end third finger left hand cut off. Caught between two rion flasks in cloudry—killed. Caught left hand on rip-saw—out hand from base of thumb to little	Hand deaught in the Only and usual of States of Hand and the Chand Sightly crushed.  Hand deaught in genr on lathe—little frob twised.  Hand caught in genr on lathe—little finger left hand hurt.  Hand caught in genr on lathe—little finger left hand hurt.  Caught hand in elevator stop—hand pinched.  Slipped and twisted knee—left knee sprained and twisted.  Caught hand on planer—little finger on right hand broken and nail  Caught hand on saw—two fingers and rhumb cut off.  Itom off.  Stepped on spike nails—punctured wound of left foot near toes.  Rail cobble rolled from pile on to foot—fracture of left ande joint.  Emery wheel burst—died July 31, 1896.  Salishing of motten from—left foot burned. [hand almost severed. Spishing of motten right hand bey ween rail and top of ear—end middle finger right.	Iron rust and dirt falling in eye—sight of left eye lost.  Breaking of heading saw—flesh wound index linger left hand.  Iron falling—foot bruised.  Iron falling—foot bruised.  Iron falling on foot—severe contusion of great toe necessitating.  Struck with sledge—nose cut.  Flances burshing from furnace door—face left arm and hand burned.  Hand caught in Jointer—thumb and first linger cut.  Coming in contact with electric wire causting him to fall—killed.  Arm caught on pulley—bruised and flesh torn.  Flance of foot opening—right arm burned.  Flance of iron falling from pile—contusion of great toe, right foot.  Hand caught bet ween two pleces of iron—sore finger.  Lifting heavy piece iron—back sprained.	Timber falling on fron bolt causing it to fiy up and strike man—ankle Caught finger in jack—first finger left hand crushed, [bruised. Pulling thain out of pile of fron—hody strained.  Splashing of motion fron—eye balls and lids burned.  It no dropping on foot—top left foot bruised.  Rall dropping between sidd and bed-rall on foot—compound fracture glassware fulling—rib broken. [of great toe at base. Stick caught by belt wrenething from hand—bone fractured above wrisk.	Arm badly crushed between rolls of wood planet—died September Finger struck by sledge—second finger left hand bruised. [10, 1866. Struck by piece of wood on wheel press—severe bruise of right leg Struck by flying piece of wood—left eye wounded. [below knee. Splashing of molten iron—right foot burned.  Losing balance and falling from first floor to basement—two ribs right side broken, both ankles sprained.  Climbed on gate, elevator descending on him—wrist broken.  Hand caught between upper part and flange on flange press—finger on left hand taken off at first joint.
Akron Sprinkfield Montpelier Lorain Hamilton	Cleveland Middictown Barberton Martin's Ferry Cleveland Albany Lorain Salem Canton Dayton Lorain Cortin	Cleveland Cold water Wellsville Canton. Wellsville Dayton. Loran Paulding Wellsville Lorain Wellsville Wellsville Velskville Velsville Lorain Wellsville Lorain	Welsville	Burton Wellsville Dayton Dayton Cleveland Sandusky
The Baker, McMillen Co	Cleveland Branch U. S. Baking Co. Mardlow, Thomas Paper Co. Diamond Match Co. Spence Baggs & Co. Spence Baggs & Co. Cleveland Ship Bulding Co. D. A. Miller & Co. Johnson & Co. Buckeye Finding Co. The Bonnet Co. Dayton Maleable Iron Co. Dayton Maleable Iron Co.	Cleveland Ship Building Co Creamery Peckage Mfg Co Cramery Peckage Mfg Co Canton Steel Co Dayton Mallenble Iron Co Dayton Mallenble Iron Co Dobson Co Peul Weldman Peunsylvania Co Peul Weldman Pennsylvania Co Pennsylvania Co Pennsylvania Co Pennsylvania Co Road & Shealth Co Flooring Co		Burton Handle Co Pennsylvania Co Dayton Malleable Iron Co Natural Cash Register Co Cleveland Branch U. S. Baking Co Standard Wheel Co
855522				1888 aa aa
Joseph-Antolonia Frank Abren Jacob Gaehner George Wand Gorge A blens Philip Mach	アガイナル以下のできてき			Isaac D. Brainard
July 43	*.************************************	では、中に日本日二四四年前刊 ・	តិសតិសិតិសិត្តគ <sub>្គ</sub> ្រ ស ស	பலவை 4 4 10 60 இ

# TABLE XXII—ACCIDENTS—Concluded.

City or town.	Weilsville Air eyilinder failing on hand—back of hand bruised.  Youngstown.  Explosion blasting powder—killed. Weilsville Explosion blasting powder—killed. Weilsville Explosion blasting powder—killed. Weilsville Struck by a failing piece of wood—thumb of left hand bruised. Hands caught in knyes of wood—thumb of left hand bruised. Barberton Caught head between elevator weight and cross-beam—contusion. Dayton Struck by failing rind—left hand and foot bruised. Struck by failing rind hear bowner. Struck by failing from bar—contused wound of right foot. Struck by failing rino bar—contused wound of right hand bruised. Cleveland Struck by failing two parts—killed. Dayton Struck by failing two parts—killed. Dayton Struck by failing two parts—killed. Cleveland Clay bank caring in—killed. Cleveland Clay bank caring in—killed. Clay bank caring in—killed. Clay bank caring in—killed. Clay bank caring in—killed. Dayton Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with handle of sledge-hammer—inflamation of the Struck himself with hand on the sledge-hammer—inflamation of the Struck by wheel-barrow is sledge-hammer—inflamation of the Struck by wheel-barrow is sledge-hammer—inflamation of the Struck by wheel-barrow is sledge-hammer—inflamation of the Struck by wheel-barrow is sledge-hammer—inflamation of the scroul him and on the sledge-hammer—inflamation of the scroul himself with province on the sledge-hammer—inflamation of the scroul himself with handle of sledge-hammer—inflamation serp-ladder thiped and was throw to ground—make species of Gaught to a standard of the sledge-hammer—inflamation serp-ladder thiped and serb-l
Ву whom employed	Pennsylvania Co Obio Powder Co Wilmington Electric Light Co Pennsylvania Co Wilmington Electric Light Co Pennsylvania Co National Cash Register Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Match Co Diamond Co Diamond Co Diamond Co Diamond Co Diamond Co Cleveland Wheel and Foundry Co Cleveland Wheel and Foundry Co Cleveland Wheel and Foundry Co Cleveland Wheel and Foundry Co Cleveland Wheel and Foundry Co Cleveland Wheel Co Cleveland Co Cl
уке.	本心能的智慧 经施克契约等异心的第三 经占置 <b>等 25. 27. 25. 26. 26.</b> 26. 26. 27. 27. 27. 27. 27. 27. 27. 27. 27. 27
Name of person injured	E. M. Saltsman Groupe W. Lynch Harry M. Taylor Ja. Mylar Louis Hafter Louis Hafter Charles Smith Paul Succal Bavid Ely William Hewitt Charles Smith Paul Succal Bavid Ely William Hewitt Charles Hocker W. L. Wright James Hutes John Taylor J. E. Dayton Benjamin Lamiters Ezra Taylor Benjamin Lamiters R. Trumhle George Bune George Bu
lo stad tusbissa	97.255 55558888888888888888888888888888888

\*Received too late for publication in twelfth annual report.

### SUMMARY.

જ્ઞુસ	819	628 7,248 5,178 20 9,587 15 1,686 30 2,063 58
Number of accidents causing injury.	Total number accidents reported	Number persons deprived of support in consequence of accident.  Total number days disability on account of accident.  Total number days disability on account of accident.  Total amount of expense incurred to injured person on account of accident.  Total loss of wages to injured person on account of parameters of accident.  Total amount of systems on account of person during disability.  Total amount of systems paid by accident insurance Companies.  Total amount of expense paid by accident insurance Companies.  2.008

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